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EFFECTS OF DEVELOPING EDTPA AS A TEACHING PORTFOLIO ON PRE-SERVICE TEACHERS' SELF-EFFICACY IN A TEACHER PREPARATION PROGRAM

By

Pam Wetherington

A Dissertation Submitted in Partial Fulfillment
of the Requirements for
the Degree of Doctor of Education
in Curriculum and Leadership
(CURRICULUM)

Columbus State University
Columbus, GA

May 2017

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Throughout this dissertation journey, the Lord consistently reminded me of the following scripture, “Now unto Him that is able to do exceeding abundantly above all that we ask or think, according to the power that works within us” Ephesians 3:20. Therefore, may all honor and glory go to Him, my God, who provided the tools needed to persevere in order to finish this race. I have no doubt that without His grace during this time, I would not have successfully finished this race.

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VITA

Dr. Pamela Wetherington
Coordinator of Curriculum, Teaching, & Innovation
Department of Teacher Education
Columbus State University
4225 University Avenue Columbus, GA 31907-5645
Tel: (706) 507-8518

EDUCATION:

Columbus State University Columbus, GA
- Ed.D. in Curriculum & Instruction/Early Childhood Education (2017)

Columbus State University Columbus, GA
- M.Ed. in Early Childhood Education: Curriculum and Instruction (2008)

Columbus State University Columbus, GA
- B.S.Ed. in Early Childhood Education (2006)

ACADEMIC APPOINTMENTS AND OTHER SIGNIFICANT WORK EXPERIENCE:

Coordinator of Curriculum, Teaching, and Innovation Columbus State University 2017-present
Department of Teacher Education, COEHP

Program Coordinator, Early Childhood Education Columbus State University 2015-2017
Department of Teacher Education, COEHP

edTPA National Consultant AACTE 2015-present
American Association of Colleges for Teacher Education

edTPA Regional Consultant: GaPSC 2014-2015
Georgia Professional Standards Commission

Instructor, Early Childhood Education: Columbus State University 2013-present
Department of Teacher Education, COEHP

edTPA Coordinator: Columbus State University 2013-present
Department of Teacher Education, COEHP

Director of Summer Spectacular: Columbus State University 2009-present
Department of Teacher Education, Early Childhood Program

Coordinator of Student Teaching: Columbus State University 2011-2013
Department of Teacher Education, COEHP

Early Childhood Education Teacher (4th Grade): Harris County Schools 2008-2011
New Mountain Hill Elementary 33 Mountain Hill Road Fortson, GA 31808

Graduate Assistant: Columbus State University 2007-2008
Department of Teacher Education, Early Childhood Education Program

ABSTRACT

The purpose of this study was to investigate the effects of developing edTPA as a teaching portfolio on pre-service teachers' self-efficacy, specifically their perceptions of confidence related to the edTPA's constructs of planning, instruction, and assessment within a tied-to-licensure state. The researcher employed a sequential explanatory mixed methods approach to study the effects and experiences for developing edTPA as a teaching portfolio. Three repeated measures ANCOVAs were conducted to determine the change in pre-service teachers' self-efficacy after developing the edTPA teaching portfolio while controlling for the cooperating teachers' support of pre-service teachers' planning, instruction, and assessment decisions and practices. The quantitative data collected from 42 pre-service teachers, who responded to a pre and post Self-Efficacy Survey and representing various teacher preparation programs (e.g., Health and Physical Education, Theatre Education, Secondary Math), indicated a significant increase in their levels of self-efficacy after developing the edTPA as a teaching portfolio. However, once the covariates for the support offered to the pre-service teachers by the cooperating teachers for planning, instruction, and assessment were entered, there was no longer a significant increase in pre-service teachers' self-efficacy. Additionally during the quantitative phase of the study, pre-service teachers were asked to self-assess their edTPA Tasks with the edTPA official rubrics. Data collected from the 15 rubrics were averaged; then, the mean was ordered from least to most and divided into quartiles. Pre-service teachers in the highest and lowest quartiles were asked to participate in individual, semi-structured interviews. After interviewing the two cases (i.e., one female representing the high quartile and one female representing the low quartile), a case study analysis was conducted to determine the similarities and differences between the two cases when describing their experiences for developing edTPA as a teaching portfolio. From the case study analysis, the following themes were constructed: edTPA as experiential (i.e., encountering challenges and influencing reflective practice) and edTPA as relational (i.e., relationships with cooperating teacher, relationships with students, cooperating teachers' limited knowledge of edTPA, and perceptions of cooperating teachers' teaching styles).

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CHAPTER 1

INTRODUCTION

Two of the most essential objectives in teacher preparation programs are to provide experiences for pre-service teachers to collect evidence of their readiness to teach (Darling-Hammond, 2010) and to develop confidence in their abilities to teach (Tschannen-Moran & Hoy, 2001). By providing these experiences, pre-service teachers are able to cultivate beliefs of self-efficacy (Dinther, Dochy, & Segers, 2011; Soini, Pietarinen, Toom, & Pyhalto, 2015). Self-efficacy is an individual's perception of his/her competence in mastering objectives (Bandura, 1977). Hoy (2000) described teacher self-efficacy as the teachers' perceptions of confidence to increase student achievement. Self-efficacy or confidence has been attributed to teacher effectiveness such that teachers demonstrating highly effective qualities and teaching practices are teachers that have higher levels of self-efficacy (Guo, Justice, Sawyer, & Tompkins, 2011; Justice, Mashburn, Hamre, & Pianta, 2008; Sezgin & Erdogan, 2015; Tschannen-Moran & Hoy, 2001).

Various studies have reported the effects of teacher self-efficacy. Self-efficacy has been shown to be a contributing factor related to teachers' attitudes and beliefs about teaching and their students' learning (Guo et al., 2011; Hallinan, 2008; Justice et al., 2008; Kelm & McIntosh, 2012; Sezgin & Erdogan, 2015; Tschannen-Moran & Hoy, 2001; Tschannen-Moran, Hoy, & Hoy, 1998). Tschannen-Moran and Hoy (2001) found teachers' self-efficacy to affect their beliefs and actions related to teaching in terms of their zeal, preparation, and determination. Teachers with higher levels of self-efficacy conveyed feeling prepared to evaluate their students' learning and develop innovative

teaching strategies to meet their students' needs (Guo et al., 2011; Justice et al., 2008). Furthermore, Klassen, Tze, Betts, and Gordon (2011) found teachers' self-efficacy to predict the amount of time and energy teachers spend on planning, teaching, and assessing.

In order to increase pre-service teachers' self-efficacy/confidence, they must be afforded with authentic teaching and learning experiences and given opportunities to reflect on their experiences throughout their teacher preparation programs. Some examples that have shown an increase in pre-service teachers' self-efficacy are (1) observing highly effective teachers' practices (Brown, Lee, & Collins, 2013; Soini et al., 2015; Tatar & Buldur, 2013), (2) performing authentic teaching tasks (Brown et al., 2015; Pendergast, Garvis, & Keogh, 2011; Tatar & Buldur, 2013), (3) receiving feedback of their own teaching practices (Faiza, Downer, & Pianta, 2012; Soini et al., 2015; Unver, 2014), and (4) reflecting on their teaching practices (Mena-Marcos, Garcia-Rodriguez, & Tillema, 2013; Raghozaran &Gholami, 2014; Unver, 2014). Pre-service teachers whose experiences build and strengthen their self-efficacy are more likely to be day-one, learner-ready upon receiving teacher licensure (Brown et al., 2015; Gurvitch & Metzler, 2009; Jones, 2010). As one pre-service teacher recently stated, "Oh, I get it now! You [teacher educators] want us to be become better at a faster rate" (T. Adams, personal communication, August 11, 2014). Therefore, it is incumbent upon teacher preparation programs to provide experiences for pre-service teachers to have opportunities for increasing their self-efficacy.

For years, state licensing agencies have required pre-service teachers to demonstrate their teaching competence by completing a paper-and-pencil, standardized

teaching exam that assesses their content knowledge (e.g., history, mathematics, special education laws) (Darling-Hammond, 2010). However, limited if any information can be gained from the traditional, standardized teaching exams in terms of pre-service teachers' pedagogical skills, reflections, and confidence of their teaching practices (Darling-Hammond, 2010). The effectiveness of teaching has not been defined exclusively by teachers' content knowledge but also by their pedagogical skills and ability to provide positive and challenging learning environments that impact their students' achievement (Bakar, Mohamed, & Zakaria, 2012; Muijs & Reynolds, 2015; Patrick, Kaplan, & Ryan, 2011).

To date, teacher preparation programs have assessed and collected evidence of their pre-service teachers' pedagogical skills through field observations. Typically, the field observations are conducted in the context of another teacher's classroom (i.e., cooperating teacher). The field observation evaluations are based on the faculty members' perceptions of the pre-service teachers' actions in the classroom and rarely allow pre-service teachers to explain, describe, justify, or analyze their decisions regarding planning, instruction, and assessment (Darling-Hammond, 2010; Peck, Singer-Gebella, Sloan, & Lin, 2014). Teacher preparation programs can collect evidence of pre-service teachers' pedagogical skills, reflections, and confidence of their teaching decisions and practices by requiring them to develop a teaching portfolio (Lyons, 1998; Shulman, 1986).

In the mid-80s, teacher preparation programs began to explore the notion of using teaching portfolios as a summative performance assessment to indicate pre-service teachers' readiness to teach and their ability to effectively reflect on their teaching

practices (Lyons, 1998; Pecheone, Pigg, Chung, & Souviney, 2005; Shulman, 1986; Snyder, Lippincott, & Bower, 1998). Shulman (1994) defined a teaching portfolio as a collection of authentic artifacts (e.g., lesson plans and student work samples) intentionally chosen by the teacher to reflect on the purpose of his/her decisions and their impact on students' learning. Researchers found the development of portfolios for pre-service teachers to have "transformative power" (Lyons, 1998, p. 4), transforming their philosophies of teaching and their classroom practices (Snyder et al., 1998). Furthermore, researchers discovered the process of developing teaching portfolios increased pre-service teachers' confidence in their teaching decisions and practices, problem-solving skills, and analysis of teaching decisions and practices (Anderson & DeMeulle, 1998; Antonek, McCormick, & Donato, 1997; Borko, Michalec, Timmons, & Siddle, 1997).

Through the reflective space provided within a teaching portfolio, pre-service teachers are able to explain, describe, justify, and analyze their teaching decisions and practices (Stanford Center for Assessment, Learning & Equity, 2015). This space for intentional reflection has been found to lead to an increase in self-efficacy (Auhl & Daniel, 2014; Mukeredzi, 2014). Bandura (1997) described the effect of intentional reflection on self-efficacy as,

> Information that is relevant for judging personal capabilities – whether conveyed enactively, vicariously, persuasively, or physiologically – is not inherently enlightening. It becomes instructive only through cognitive processing of efficacy information and through reflective thought. (p. 79)

Additionally, pre-service teachers' reflective abilities of their teaching decisions and practices within the space cannot be evaluated by a standardized, teaching exam

evaluating pre-service teachers' content knowledge (e.g., mathematics, science, theoretical connections) or within an observation completed by teacher preparation faculty members evaluating pre-service teachers' lesson plans or observed teaching. To reflect upon and evaluate one's teaching decisions and practices, the pre-service teacher needs a designated space to do so, and the opportunity to self-reflect/evaluate must be provided and valued as a critical component of his/her pedagogical knowledge (Auhl & Daniel, 2014; Frunzeanu, 2014; Gallant & Mayer, 2012). The edTPA represents one teaching portfolio that affords pre-service teachers the space to intentionally select authentic artifacts that represent their decisions and practices from the context of classrooms in which they are student teaching. Furthermore, through the development of the edTPA teaching portfolio, pre-service teachers are provided with opportunities to reflect on their artifacts (e.g. planning, instruction, and assessment decisions).

THEORETICAL FRAMEWORK

According to Bandura (1977), an individual's self-efficacy is influenced by four factors, "performance accomplishments, vicarious experiences, verbal persuasion, and physiological states" (p. 195). Prior to the four factors influencing self-efficacy, one must consider the incoming information (e.g., demonstrations, performances, feedback, and emotional reactions) to reflect on how the information can be used to make future decisions on performing a similar skill or task (Pendergast et al., 2011). Bandura (1977) explained the first factor, performance accomplishments, to increase self-efficacy if one experienced multiple experiences of success. By having these experiences, one would feel more confident in his/her abilities to successfully complete future-related skills or tasks. The second factor, vicarious experiences, allows an observer to establish

confidence by watching others perform skills or tasks with few, undesirable effects. The third factor, verbal persuasion, is known to be the most accessible factor for affecting feelings of efficacy. Bandura (1977) explained verbal persuasion as, "People are led, through suggestion, into believing they can cope successfully with what has overwhelmed them in the past" (p. 198). The fourth and final factor influencing feelings of efficacy is physiological state (i.e., emotional arousal). Physiological state is what occurs when the physical body is faced with a challenge. Out of the four factors, emotional arousal has the least significant effect on feelings of efficacy. For the purpose of this study, the researcher focused on the most significant factor for influencing self-efficacy, performance accomplishment. The process of developing the edTPA teaching portfolio can be classified as a performance accomplishment because the process allows the pre-service teacher to select "authentic evidence of one's performance" (Pendergast et al., 2011, p. 47) and to reflect on his/her authentic evidence. As Bandura (1997) noted, the reflective process of one's performance is the key factor, contributing factor to affecting self-efficacy/confidence. By reflecting on a performance accomplishment, one can establish judgements for future, similar performances (Bandura, 1977). Figure 1 displays the theoretical framework for this study based on Bandura's theory of self-efficacy (1977).

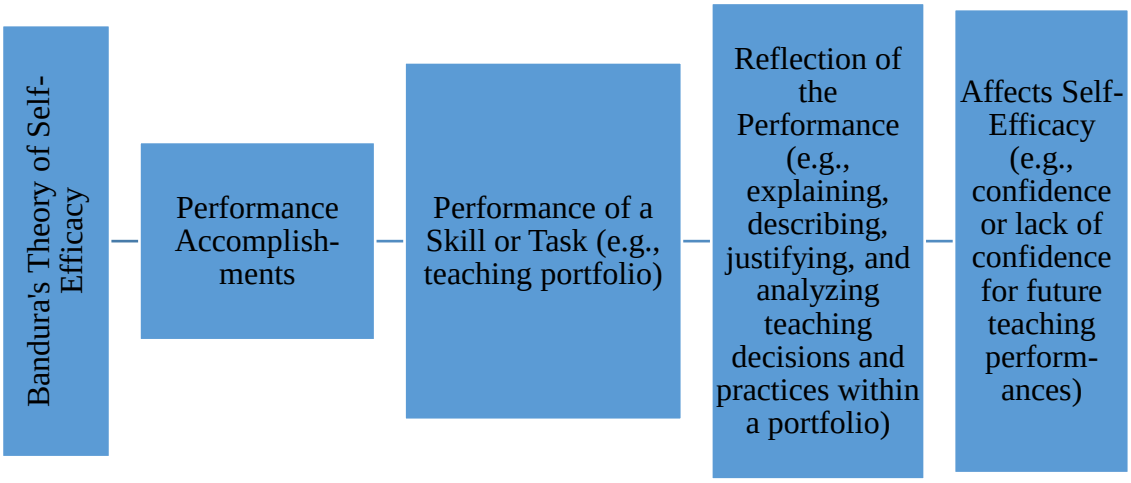
Bandura's Theory of Self-Efficacy
Performance Accomplish-ments
Performance of a Skill or Task (e.g., teaching portfolio)
Reflection of the Performance (e.g., explaining, describing, justifying, and analyzing teaching decisions and practices within a portfolio)
Affects Self-Efficacy (e.g., confidence or lack of confidence for future teaching perform-ances)

Figure 1. Theoretical framework (Bandura, 1977).

STATEMENT OF THE PROBLEM

The development of teaching portfolios has been shown to increase pre-service teachers' confidence to solve classroom-related problems, develop strategies to meet their students' needs, deepen their abilities to reflect, and have professional conversations with others. The edTPA can be recognized as a teaching portfolio in that pre-service teachers are collecting evidence of their lesson plans, instruction, and assessments. Furthermore, edTPA provides the space for pre-service teachers to intentionally reflect on their planning, instruction, and assessment decisions and practices. Currently, little empirical research has been conducted to investigate the effects of developing the edTPA teaching portfolio on pre-service teachers' self-efficacy, specifically their confidence of competence in regard to the edTPA constructs of planning, instruction, and assessment. Furthermore, there is little empirical evidence to indicate the effects of successfully developing a teaching portfolio for pre-service teachers situated within a state in which their performance on the teaching portfolio is tied-to-licensure. Thus, the purpose of this study was to investigate the effects of developing the edTPA as a teaching portfolio on

pre-service teachers' self-efficacy, specifically their perceptions of confidence related to the edTPA's constructs of planning, instruction, and assessment within a tied-to-licensure state.

SIGNIFICANCE OF THE STUDY

Although researchers have studied other teaching portfolios in terms of pre-service teacher professional development and confidence, currently there are no studies that have investigated the effects of developing the edTPA as a teaching portfolio on pre-service teachers' self-efficacy in terms of planning, instruction, and assessment. Moreover, there is little empirical evidence regarding the effects of satisfactorily developing teaching portfolios on pre-service teachers' self-efficacy in order to be granted teacher licensure. Therefore, this study addressed the development of the edTPA teaching portfolio and its effects on pre-service teachers' self-efficacy within a tied-to-licensure state. The results from this study will benefit teacher educators, stakeholders, and pre-service teachers. There is certainly a need to collect evidence from pre-service teachers indicating their readiness to teach prior to being recommended for teacher licensure (e.g., contents within the portfolio). Moreover, there is a critical need to collect evidence of their confidence related to teaching. Confidence of teaching has been shown to influence teachers' beliefs of their teaching effectiveness, beliefs in their abilities to provide effective instruction for their students, and attitudes toward the profession.

By investigating pre-service teachers' self-efficacy/confidence, teacher educators, stakeholders, and pre-service teachers can recognize the process of developing the edTPA teaching portfolio as having transformative power in pre-service teachers' teaching self-efficacy. According to Bandura (1977), "It might be argued that self-efficacy proved to

be an accurate predictor of performance in the enactive mode of treatment because subjects were simply judging their future performance from their past behavior" (p. 211). Hence, this investigation of pre-service teachers' self-efficacy will allow inferences to be made of pre-service teachers' confidence for planning, instruction, and assessment, which can be used to inform future planning, instruction, and assessment practices/performances.

RESEARCH QUESTIONS

For this study, the researcher answered the following questions:

(1) To what extent does developing the edTPA as a teaching portfolio affect the teaching self-efficacy of pre-service teachers in a teacher preparation program?

(2) How did pre-service teachers perceive their experiences after completing the edTPA teaching portfolio?

POSITIONALITY STATEMENT

Since spring 2013, the researcher has served as the edTPA Coordinator for one teacher preparation program situated within a state that has adopted edTPA as one of its requirements for pre-service teachers seeking teacher licensure. In leading up to the consequential semester (i.e., fall 2015), the researcher worked to educate faculty (e.g., local evaluation training and curriculum mapping training) representing various teacher preparation programs (e.g., Art Education and Secondary Science Education), regarding the requirements of edTPA and helped develop structures of support for each program's pre-service teachers (e.g., edTPA-like assignments and edTPA Boot Camps). In fall 2013, the researcher also began working as an instructor for the Early Childhood

Education (ECE) Program to assist in preparing ECE's pre-service teachers. As an instructor for the ECE Program, the researcher worked extensively with ECE pre-service teachers by preparing them for teaching, providing feedback on assignments, and developing relationships.

From 2014-2015, the researcher began serving as one of four edTPA Regional Consultants for the state's teacher certification agency. The state was divided into four regions, each with approximately 15 Educator Preparation Providers (EPPs). The EPPs are diverse in that some are public, higher education institutions; some are private, higher education institutions; and some are Regional Educational Service Agencies (RESA). Although the EPPs have differences in terms of the scope and sequence for teacher preparation, each has a responsibility to prepare pre-service teachers for initial teacher licensure (i.e., teacher certification). As an edTPA Regional Consultant, the researcher's responsibilities included: (1) provided trainings for faculty (e.g., local evaluation and curriculum mapping); (2) served on statewide committees (e.g., edTPA Policy and Implementation and edTPA Advisory Board); (3) planned for statewide trainings (e.g. edTPA Summit); (4) responded to e-mails from EPPs' edTPA Coordinators and faculty; (5) disseminated information to EPPs' edTPA Coordinators; (6) and presented at various conferences. In spring 2015, the researcher began serving as one of the edTPA National Consultants for Stanford's Center for Learning, Assessment & Equity. Since beginning the national consultant work, the researcher has provided training and support for more than 20 EPPs within and outside the tied-to-licensure state.

LIMITATIONS/DELIMITATIONS

Limitation. This study was limited by the fact that it studied one group of pre-service teachers from one teacher preparation program. Inferences could be limited for other pre-service teachers from other semesters and from other teacher preparation programs in terms of making correlations between their perceptions of self-efficacy and the results from this group of pre-service teachers. In teacher preparation programs, there are multiple variables that influence pre-service teachers' development of self-efficacy (e.g., teacher educators and pre-service teachers' demographic information). Additionally, this study is limited to one semester of student teaching (i.e., fall 2016). In student teaching, there are multiple variables that can potentially influence pre-service teachers' self-efficacy (e.g., culture of school, cooperating teacher, and students). Furthermore, the researcher's roles in the teacher preparation program were instructor for the Early Childhood Education (ECE) Program and edTPA Coordinator for all teacher preparation fields within one university. As instructor for the ECE program, the researcher worked extensively with ECE pre-service teachers by preparing them for teaching, by providing feedback on assignments, and developing relationships. The ECE pre-service teachers could have potentially felt a sense of loyalty to participate in the study at a higher rate than other teacher preparation programs from the university. Also, as the edTPA Coordinator, the researcher provided structures of support (e.g., edTPA Boot Camp) for all pre-service teachers, representing all teacher preparation programs, throughout the student teaching semester as pre-service teachers developed their teaching portfolios. The pre-service teachers may have felt obligated and/or a sense of loyalty to participate in the study because of the relationships developed throughout the structures

of support. Finally, the pre-service teachers represented in this study must satisfactorily complete the edTPA teaching portfolio and submit it for scoring by trained scorers who are not affiliated with the college or university as edTPA is a state requirement, tied to teacher licensure. Therefore, the results of this study may not be generalized to include programs in which edTPA is evaluated by university faculty and where it is not tied-to-licensure.

Delimitation. Pre-service teachers participating in the study represented each of the teacher preparation programs from one institution with the exception of the Foreign Language Education and Special Education programs. The edTPA World Language and Special Education Handbooks have differences in terms of constructs and expectations that would make inclusion of the data from these two programs problematic. Also, pre-service teachers within the Early Childhood Education program were required to complete a fourth task within the Elementary edTPA teaching portfolio as opposed to other programs that complete three tasks. Early Childhood Education pre-service teachers' self-efficacy and self-assessment for the first three tasks for planning, instruction, and assessment were included in this study; however, their self-efficacy and self-assessments for Task 4 were not included.

DEFINITION OF TERMS

The following terms and definitions were used throughout this study.

edTPA: The teacher performance assessment, edTPA, is a teaching portfolio that allows pre-service teachers to provide evidence of lesson plans, videotape(s) of instruction, analysis of students' learning, and reflection of teaching effectiveness within the contexts

of their student teaching classrooms (Stanford Center for Assessment, Learning & Equity, 2015).

External Scoring: After pre-service teachers have developed their edTPA teaching portfolios, they submit the portfolios to Evaluation Systems, a group of Pearson, for official, external scoring (Stanford Center for Assessment, Learning and Equity, 2013).

Performance Accomplishment: Performance accomplishment is when an individual experiences success after completing a task. Performance accomplishment is known to be the most significant influencer of self-efficacy (Bandura, 1977).

Pre-Service Teacher: A pre-service teacher is one that is enrolled in a teacher preparation program and has not yet been recommended for teacher licensure.

Self-Efficacy: Self-efficacy is an individual's perception of his/her competence in mastering objectives (Bandura, 1977). Bandura's (2006) self-efficacy surveys include the term confidence as opposed to competence.

Self-Confidence: "Self-confidence is the belief that one can successfully execute a specific activity" (National Research Council, 1994).

Student Teaching: Student teaching is the final semester within pre-service teachers' teacher preparation program. Within the final semester of student teaching, the pre-service teacher assumes most of the teaching responsibilities for a class (or classes) of students.

Teacher Self-Efficacy: A teacher's perception of confidence in his/her ability to increase student achievement (Hoy, 2000).

Teacher Performance Assessment: A teacher performance assessment is, "designed to determine (for certification purposes) how well teachers can demonstrate certain

minimum teaching skills considered to be essential to effective teaching" (Capie, 1979, p. 1).

Teacher Licensure: Teacher licensure is required by state licensing agencies prior to becoming an in-service teacher or also known as the teacher-of-record. Teacher licensure is granted after pre-service teachers have successfully completed their teacher preparation programs, passed all applicable exams/assessments, and have been recommended by their programs for licensure eligibility.

Teaching Portfolio: A teaching portfolio is a collection of teaching artifacts selected by the teacher to reflect on the intentionality of his/her decisions and practices while reflecting on his/her ability to impact students' learning (Shulman, 1994).

Teacher Preparation Program: Teacher preparation program is a, "State-approved course of study, the completion of which signifies that an enrollee has met all of the State's educational or training requirements for initial certification or licensure to teach in the State's elementary or secondary schools" (United States Department of Education, Office of Postsecondary Education, 2012, http://www.gpo.gov/fdsys/pkg/CFR-2012-title34-vol4/pdf/CFR-2012-title34-vol4-sec686-2.pdf).

Tied-to-Licensure: When states adopt edTPA as their teacher performance assessment to be a requirement for teacher licensure, the state is then referred to as a tied-to-licensure state.

CHAPTER 2

REVIEW OF LITERATURE

Teacher quality, student achievement, state and national standards, and high-stakes' measures are some of the concepts frequently discussed within the context of education, but each of the concepts is linked to the all-encompassing concept of accountability (Tschannen-Moran & Barr, 2004). Accountability is certainly not a recently developed concept in education. For more than one hundred years, the primary goals in education have focused on (1) ensuring teachers are learner-ready, (2) increasing student achievement, and (3) closing the gap of student achievement. Albeit, the concept of accountability and accountability measures for teachers and students have become increasingly rigorous within the last ten years (Darling-Hammond, 2010; Luster, 2010; Pecheone et al., 2005; Peck, Singer-Gabella, Sloan, & Lin, 2014).

For decades, policy makers have urged state licensing agencies and teacher preparation programs to re-examine and/or revise their assessment methods and instruments that provide evidence pre-service teachers are ready to teach upon being eligible for teacher licensure (Carnegie Forum on Education and the Economy, 1986; Council of Chief State School Officers, 1987; National Commission on Excellence in Education, 1983; National Council for Accreditation of Teacher Education, 1999; United States Department of Health, Education, & Welfare, 1965). As Lyons (1998) stated,

> If teaching was to become a profession similar to others, it also would need to carry the means to guarantee that members had met requirements for entry into the profession, had the knowledge and skills required to practice, and had the power to participate in the governance and decision making of schools. (p. 14)

One uniform way to assess pre-service teachers' readiness to teach across states is a teaching portfolio (Darling-Hammond, 2010; Lyons, 1998). The teacher performance assessment, edTPA, can be considered a teaching portfolio. Shulman (1986) described a teaching portfolio as an intentional selection of teaching artifacts (e.g., lesson plans, student work samples, and assessments) and reflections of teaching. Through the development of the edTPA teaching portfolio, pre-service teachers are selecting artifacts that represent their authentic teaching decisions and practices for planning, instruction, and assessment. Additionally, pre-service teachers reflect on their authentic, teaching artifacts by describing, explaining, justifying and analyzing their teaching decisions and practices (Stanford Center for Assessment, Learning & Equity, 2015).

Since the mid-80s, teaching portfolios have served several purposes. First, pre-service teachers' collections of artifacts and reflections have been used as indicators for readiness to teach (Lyons, 1996; Pecheone et al., 2005; Shulman, 1986). Second, researchers discovered after pre-service teachers developed a teaching portfolio, their confidence increased in terms of their abilities to assess and analyze students' learning (Gallant & Mayer, 2013; Okhremtchouk, Newell, & Rosa, 2013). Third, researchers found the effects of developing a teaching portfolio on pre-service teachers' confidence to increase in regard to the reflection of teaching (Forawi et al., 2012; Hartnett-Edwards, 2013; Lin, 2015). Fourth, the teaching portfolio affected pre-service teachers' abilities to confidently experiment with new teaching practices (Chung, 2008; Okhremtchouk et al., 2013). Finally, researchers discovered pre-service teachers' confidence to increase when having professional conversations with future employers (Gallant & Mayer, 2013; Strudler & Wetzel, 2012).

JOURNEY OF TEACHER PERFORMANCE ASSESSMENT: POLICY AND LEGISLATION

The Council of Chief State School Officers (CCSSO) has advocated for federal education policy since 1908 with the key principle to increase student achievement. This key principle became the impetus for the development of the National Council for Accreditation of Teacher Education (NCATE) and the Elementary and Secondary Education Act of 1965 (ESEA). In 1954, the National Council for Accreditation of Teacher Education (NCATE) was formed with support from multiple educational organizations (e.g., American Association of Colleges for Teacher Education (AACTE), National Association of State Directors of Teacher Education and Certification (NASDTEC), National Education Association (NEA), Council of Chief State School Officers (CCSSO), and National School Boards Association (NSBA). In the early stages of forming NCATE, the mission became, "Every student deserves a caring, competent, and highly qualified teacher" (National Council for Accreditation of Teacher Education, 1999, p. 1). The purpose of the mission was to hold teacher preparation programs accountable for the development of their pre-service teachers which resulted in the development of an accreditation process by which the following standards were used to hold teacher preparation programs accountable: (1) "Candidate Knowledge, Skills, and Dispositions; (2) Assessment System and Unit Evaluation; (3) Field Experiences and Clinical Practice; (4) Diversity; (5) Faculty Qualifications, Performance, and Development; (6) and Unit Governance and Resources" (James Madison University, 2013, https://www.jmu.edu/coe/educationunit/ncate.shtml).

The purpose of the NCATE accreditation process was described as,

> Professional accreditation of preparatory education programs is the bedrock upon which all professions (e.g., architecture, engineering, medicine, law) have built their reputations. It assures that those entering the respective field have been suitably prepared to practice through assimilation of a body of knowledge and pre-service practice in the profession. Accreditation of schools of education indicates that the school underwent rigorous external review by professionals, that performance of a teacher candidate in the program has been thoroughly assessed before he or she is recommended for licensure, and that programs meet standards set by the teaching profession at large. (National Council for Accreditation of Teacher Education, 2002, p. 3)

The accreditation process allowed for teacher preparation programs to confidently affirm their programs were successfully preparing their pre-service teachers and were ready for the profession (Floden, 1980; Fritschel, 1978).

The ESEA sought to "improve educational quality and opportunities" (United States Department of Health, Education, & Welfare, 1965, p. 1). During the time the Act was voted upon, the issues in American society were: (1) the drop-out rate of students increased; (2) high costs associated with pursuing a college education, which resulted in the majority of the upper class being eligible for college rather than all classes of students; (3) and decrease in the job market for students without high school diplomas. In President Johnson's national address regarding ESEA, he explained the potential threat for our nation if education did not become an intentional priority for communities, parents, teachers, and students. Johnson (1965) said,

> Every child must be encouraged to get as much education as he has the ability to take. We want this not only for his sake but for the Nation's sake. Nothing matters more to the future of our country; for freedom is fragile if citizens are ignorant. (United States Department of Health, Education, & Welfare, 1965, p. 12)

Further in President Johnson's address, he provided recommendations to assist in thwarting the educational issues (e.g., financial assistance for pre-school programs, impoverished school districts, and students seeking a college education) (1965).

Through the attempts to increase student achievement, it became clear America was not making gains in education as compared to other nations. Therefore, in 1983, The National Commission on Excellence in Education released the report, A Nation at Risk: The Imperative for Educational Reform. There were numerous aims for the distribution of the report; however, the main premise of the report was, "What lies behind this emerging national sense of frustration (in education) can be described as both a dimming of personal expectations and the fear of losing a shared vision of America" (National Commission on Excellence in Education, 1983, p. 14). Based on the premise of the report, the authors described multiple findings to alert Americans of the soon-approaching demise of American society. The findings indicated various areas in which students were underperforming which were leading to low-functioning adults (e.g., low test scores, increase in illiterate adolescents, and lack of critical thinking skills for job-related responsibilities). Furthermore, the report sought to instill a sense of urgency in terms of ensuring an equitable education for all students, "…regardless of race or class or economic status" (p.9) in an effort to, "progress society" (p. 11). Moreover, "The Commission found that not enough academically able students are being attracted to

teaching," (p. 17) particularly in the areas of mathematics and science. Finally, the authors noted, "…teacher preparation programs need substantial improvement" (p. 17). According to the report, teacher preparation programs were devoting an extensive amount of time preparing pre-service teachers how to teach and not enough time on learning the content for which they were responsible for teaching. After the distribution of the report, the message, "America's position in the world may once have been reasonably secure. It is no longer" (p. 6) began to revitalize educational reform prompting for policy and legislation.

As part of the revitalization for educational reform, the Carnegie Forum on Education and the Economy (1986) released, A Nation Prepared: Teachers for the 21st Century. The motivation for developing the report was to provide a descriptive plan for the reformation of schools and the profession of teaching as stated in the report,

> Schools would become the place where students developed their thirst for knowledge. Teachers would be critical to this learning process and as such, they would be expected to think for themselves, act independently as well as collaboratively, possess a knowledge base of both depth and breadth, be able to communicate their knowledge, stimulate others to achieve, and be able to think and act with critical judgment. (Carnegie Forum on Education and the Economy, 1986, p. 25)

The Foundation firmly explained, "…teachers are a key factor in improving student achievement" (Vandevoort et al., 2004, p. 2) and worked to develop key principles and criteria to ensure students were being taught by highly skilled teachers. Therefore, in 1985, Stanford's Teacher Assessment Project (TAP) was established under

the guidance of Lee Shulman, Ed Haertel, and Lee Cronbach with support from the Carnegie Corporation of New York (Kerdeman, 1991; Lyons, 1998). The purpose of the Project was to construct criteria to assess teacher performances that reflected highly-skilled teachers. The teacher performance tasks given to the members of TAP were systematic in developing the necessary criteria and not traditional in that, "…they aimed to simulate the variety of practices and decision-making processes teachers actually use in classroom situations" (Kerdeman, 1991, p. 60). Over a period of five years, the development of criteria for assessing teaching performances was constructed which became the benchmark for in-service teachers to attain when seeking National Board Certification (Kerdeman, 1991). In 1987, the key principles established by the National Board for Professional Teaching Standards (NBPTS) were constructed to serve as overarching themes that aligned with the criteria developed by members of TAP. The key principles of NBPTS were:

1. Teachers are committed to students and their learning.
2. Teachers know the subjects they teach and how to teach those subjects to students.
3. Teachers are responsible for managing and monitoring student learning.
4. Teachers think systematically about their practice and learn from experience.
5. Teachers are members of learning communities (National Board for Professional Teaching Standards, 1991, p. 2)

One notion that emerged through the development of the NBPTS principles and criteria was to develop standards for pre-service teachers to verify their readiness to teach upon entering the profession (Vandevoort, Amrein-Beardsley, & Berliner, 2004). Therefore, education agencies representing various states and national education organizations convened to discuss the significance of preparing pre-service teachers in becoming effective teachers and establishing protocols in determining beginning teachers' effectiveness to meet the needs of their students. As a result in 1987, the Interstate New Teacher Assessment and Support Consortium (INTASC) was developed. Through these critical conversations, INTASC standards were created to be used as a model for education agencies and teacher preparation programs to reconsider and revise their licensing and preparation methods and assessments. The main objective was to provide a common understanding among education agencies and teacher preparation programs for the establishment of protocols to verify, "An effective teacher must be able to integrate content knowledge with specific strengths and needs of students to assure that *all* students learn and perform at high levels" (Council of Chief State School Officers, 1987, p. 2). The following are the INTASC standards that define what beginning teachers should demonstrate to indicate readiness to teach:

Standard 1: Content Pedagogy – The teacher must demonstrate an understanding of the content and present the content to students in ways that deepen students' knowledge.

Standard 2: Student Development- The teacher must demonstrate an understanding of their students' individual learning strengths and needs and develop learning tasks/strategies to meet their individual strengths and needs.

Standard 3: Diverse Learners- The teacher must respect individual differences and provide learning tasks/strategies to promote individuality.

Standard 4: Multiple Instructional Strategies- The teacher must provide various learning tasks/strategies that encourage critical thinking and problem solving skills.

Standard 5: Management and Motivation- The teacher must model and establish a safe, challenging learning environment for all of his/her students that promotes collaboration among the students and teacher.

Standard 6: Technology and Communication- Teacher should implement the use of technology is the classroom to enrich students' learning of content.

Standard 7: Planning- The teacher must develop clear plans that strengthen students' content knowledge and understanding of how the content is applied to real-world experiences.

Standard 8: Assessment- The teacher must consistently assess students' cognitive, social, and physical abilities.

Standard 9: Reflective Practice for Professional Development- The teacher must reflect on his/her practice to refine and/or revise instructional decisions to meet his/her students' needs.

Standard 10: School and Community Involvement- The teacher must intentionally develop relationships among students, parents, colleagues, and stakeholders to create meaningful learning for his/her students (Council of Chief State School Officers, 1987).

TEACHING PORTFOLIO

Prior to the development of the INTASC standards, the concept of pre-service teachers' readiness to teach was not clearly defined for the teaching profession (The

National Commission on Teaching & America's Future, 1996). The INTASC standards provided a benchmark for what readiness to teach truly meant for pre-service teachers to demonstrate prior to entering the profession, resulting in the beginning of a national consensus for what constituted classroom ready teachers. INTASC standard #9 Reflective Practice for Professional Development: The teacher must reflect on his/her practice to refine and/or revise instructional decisions to meet his/her students' needs (Council of Chief State School Officers, 1987), became one of the main focuses in the late 80s for teacher preparation programs. Teacher preparation programs began to consider ways in which they could provide a space for their pre-service teachers to reflect on their teaching decisions and practices with the intention that their reflections could be used as springboards to increase pre-service teachers' self-efficacy, leading to increased student achievement (Lyons, 1996; Pecheone et al., 2005; Shulman, 1986). Consequently, various teacher preparation programs introduced teaching portfolios to their pre-service teachers. Shulman (1986) defined a teaching portfolio as,

> The structured documentary history of a (carefully selected) set of coached or mentored accomplishments substantiated by samples of student work and fully realized only through reflective writing, deliberation, and serious conversation. (p. 34)

Bandura (1997) described the process of internal reflection to affect self-efficacy as,

> Information that is relevant for judging personal capabilities whether conveyed enactively, vicariously, persuasively, or physiologically is not inherently enlightening. It becomes instructive only through cognitive processing of efficacy information and through reflective thought. (p. 79)

What Bandura (1997) described as “information” (p. 79) can be defined as teaching practices, observation of others’ teaching practices, feedback from others regarding their teaching practices, and the emotions arising before, during, and after teaching practices.

One purpose for implementing teaching portfolios was for pre-service teachers to reflect on their teaching decisions and practices to better meet their students’ needs and having the confidence to do so (Lyons, 1996). Another purpose, noted as a result of implementing teaching portfolios, was that teacher preparation programs could use their pre-service teachers’ portfolios as a way to assess the pre-service teachers’ teaching performances, ensuring the pre-service teachers were ready to teach (Pecheone et al., 2005; Shulman, 1986). Hence, teaching portfolios purposefully attended to the INTASC standards but with particular attention to INTASC standard #9 regarding reflective practice (Council of Chief State School Officers, 1987).

Lyons (1998) found several benefits for allowing pre-service teachers to develop teaching portfolios during their teacher preparation programs. First, Lyons described the teaching portfolio as an authentic representation of the pre-service teacher’s decisions and practices. Second, the process of developing the portfolio was considered as “powerful” (p. 4). Through the developmental process of the teaching portfolio, the pre-service teachers determined what to include in the portfolio that reflected effective teaching, analyzed their students’ learning, reflected on their areas of strength and areas for improvement as a teacher, and described why each of these impacted their development as teachers. Third, once the pre-service teacher developed and reflected on their teaching portfolios, the process affected pre-service teachers’ confidence in their abilities to teach. Lyons (1998) noted, “This reflective, interpretive activity can result in

the surety of the realization, 'Yes, I am a teacher. I am ready to take responsibility for a class'" (p. 5).

As the implementation of teaching portfolios became purposeful for various teacher preparation programs, researchers began to investigate the process of developing a teaching portfolio and whether or not the process impacted pre-service teachers' self-efficacy related to teaching. The researchers found that the development of portfolios strengthened pre-service teachers' confidence in their teaching practices, shifted the focus from self to their students' learning and individual needs, and strengthened their problem-solving abilities and analysis of their teaching effectiveness (Anderson & DeMeulle, 1998; Antonek et al., 1997; Borko et al., & Siddle, 1997; Groom & Maunonen-Eskelinen, 2006; Stone, 1998). Antonek et al., (1997) conducted a study to examine the effects of the development of portfolios on pre-service teachers' (representing a foreign language education program) professional growth in becoming reflective practitioners. The two pre-service teachers, one male and one female, described the process of completing the portfolio as strengthening their confidence in making instructional decisions, solving problems, and analyzing their teaching practices. Anderson and DeMeulle (1998) had comparable findings to Antonek et al. (1997) but further noted how pre-service teachers relied on their portfolios to have richer, more meaningful discussions with peers and potential employers. The pre-service teachers from twenty-four teacher preparation programs found the authentic nature of the portfolios to represent their own performances and thinking along with enriching their teaching and learning experiences (Anderson & DeMeulle, 1998). Borko et al. (1997) had similar findings; however, they also found the development of teaching portfolios to afford their 21 pre-service teachers with

opportunities to deepen their reflections regarding their teaching practices. By deepening their reflections, pre-service teachers' focuses shifted from themselves to their students' needs and learning.

Although the INTASC standards had been developed and positive results were being recognized as various teacher preparation programs instituted teaching portfolios for their pre-service teachers to complete during their final semesters of their programs (i.e., student teaching) (Anderson & DeMeulle, 1998; Antonek et al., 1997; Borko et al., 1997; Groom & Maunonen-Eskelinen, 2006; Stone, 1998), the adoption of teaching portfolios was not nationally accepted by the majority of teacher preparation programs. Therefore, the need to develop a national, standardized teaching portfolio became the topic of discussion by influential members of the profession (Council of Chief State School Office, 2008; Darling-Hammond, 2010; Luster, 2010; Peck et al., 2014). In 2002, the state of California developed the Performance Assessment for California Teachers (PACT). PACT was established from the constructs of INTASC and National Board standards in an effort to allow pre-service teachers to demonstrate their readiness to teach before entering the profession.

The benefits for developing and implementing the teaching portfolio, PACT, as a teacher performance assessment in California were noted as increasing the rigor for preparation; providing additional, authentic evidence for teaching readiness; allowing teacher preparation programs to use assessment data to make programmatic changes and decisions; providing assessment data as a unit for accreditation purposes; and assisting school systems in their hiring efforts (Darling-Hammond, 2010; Chung, 2008; Okhremtchouk et al., 2009; Pecheone & Chung, 2006). Furthermore, Chung (2008)

discovered pre-service teachers began to think about teaching in ways they had never considered before which built their confidence to experiment with new teaching practices.

Although pre-service teachers and teacher preparation programs experienced great benefits when implementing PACT, the pre-service teachers did experience some barriers. The pre-service teachers described having difficulty developing the assessment because the process took too much time and interfered with their personal lives (Okremtchouk et al., 2009). Additionally, faculty members involved in the early stages of implementing PACT described the barrier as not having "faculty buy-in" (Peck & McDonald, 2013, p. 16). The faculty members that had not bought in believed their preparation methods were effectively preparing their pre-service teachers to plan, instruct, assess, and reflect on their teaching and resisted changing their preparation methods (Peck & McDonald, 2013).

Soon after other states began to implement teaching portfolios to be used as teacher performance assessments, teacher preparation programs experienced the positive impact on their pre-service teachers' levels of confidence in terms of their teaching decisions and practices (Darling-Hammond, 2010; Chung, 2008; Okhremtchouk et al., 2009; Pecheone & Chung, 2006). In 2010 and as a result of various states implementing teaching portfolios, the Teacher Performance Assessment Consortium (TPAC) was established. The purpose of TPAC was to develop a national teacher performance assessment, teaching portfolio, to be completed by all pre-service teachers seeking initial, teacher licensure with an aspiration to have common expectations and understandings of beginning teachers' readiness to enter the profession. Part of TPAC's funding came from,

"states' proposals for the federal Race to the Top education grant program" (Darling-Hammond, 2010, p. 11).

Concurrently, the Stanford Center for Assessment, Learning and Equity (SCALE) with support from AACTE and input from educators across the nation developed the Teacher Performance Assessment (TPA, now referred to as edTPA). The assessment included 27 versions for various teaching fields (e.g. elementary, secondary science, agriculture) because the developers recognized the importance of providing pre-service teachers opportunities to demonstrate teaching competence with a content-specific, pedagogical assessment. TPA was constructed from the INTASC standards and was built similarly to the frameworks of NBPTS and PACT in that it assessed pre-service teachers' abilities to plan, instruct, and assess their groups of learners within the context of their student teaching classrooms. Additionally, it assessed pre-service teachers' competencies to reflect on their planning, instruction, and assessments. Through intentional reflection, the pre-service teachers were asked to describe, explain, justify, and analyze their teaching decisions and practices within the context of their classrooms (i.e., student teaching placements) and based on their students' needs and learning (Stanford Center for Assessment, Learning & Equity, 2013).

TIED-TO-LICENSURE STATE

Other states began to consider ways in which they could answer the call from CCSSO and TPAC (i.e., developing and implementing teaching portfolios as a teacher performance assessment), particularly states that received Race to the Top funds. In 2009, President Obama issued the American Recovery and Reinvestment Act (ARRA) which offered states Race to the Top funds to make evident, "…success in raising student

achievement and have the best plans to accelerate their reforms in the future" (United States Department of Education, 2009, p. 2). Race to the Top funds were provided for states to commit to improve, develop, and/or implement (1) standards and assessments, (2) progress monitoring systems for teachers, students, and parents, (3) teacher leadership, (4) and in-depth remediation plans for low-performing schools (Hassel & Hassel, 2010). In 2011, the one state in which this study was conducted accepted Race to the Top funds and began developing strategies to guarantee each of the commitments, described previously, would be satisfied with one in particular being improving, developing, and/or adopting assessments (Barge, 2013).

Prior to accepting Race to the Top funds, the state's pre-service teachers completed a content-specific, standardized assessment (i.e., paper-and-pencil exam) as one of the requirements for teacher licensure. However, as part of the commitment to improve assessments, the state's teacher certification agency and Board of Regents made the decision to improve and strengthen assessments for pre-service teachers by adopting the teaching portfolio and teacher performance assessment, edTPA. The edTPA is recognized as a teaching portfolio as pre-service teachers are intentionally selecting authentic artifacts to represent their teaching decisions and practices from the contexts of their student teaching experiences. Furthermore, pre-service teachers are reflecting on their decisions and practices (e.g., planning, instruction, and assessment) throughout the development of the portfolio (Darling-Hammond, 2012; Education Digest, 2013; Lu, 2013; Stanford Center for Assessment, Learning & Equity, 2015). The edTPA teaching portfolio and assessment originated from Stanford University's College of Education and with support from the American Association of Colleges for Teacher Education,

educators (both P-12 and higher education), and members associated with the National Board for Professional Teaching Standards (Darling-Hammond, 2012; Education Digest, 2013; Lu, 2013).

The edTPA was built under the auspices of the INTASC standards, and constructed similarly to the architecture of NBPTS and PACT as it assesses pre-service teachers' abilities to plan, instruct, and assess their students within the context of their student teaching classrooms. Additionally, it assesses pre-service teachers' competencies to reflect on their planning, instruction, and assessments. Through intentional reflection, the pre-service teachers are asked to describe, explain, justify, and analyze their teaching decisions and practices based on their students' needs and learning (Stanford Center for Assessment, Learning & Equity, 2013).

BANDURA'S THEORY OF SELF-EFFICACY

The notion of self-efficacy has been investigated and discussed for more than 30 years (Sitzmann & Yeo, 2013; Vancouver & Day, 2005). Bandura (1982) defined self-efficacy as, "Perceived self-efficacy is concerned with judgments of how well one can execute courses of action required to deal with prospective situations" (p. 122). He reported an individual's self-efficacy would influence personal decisions, ways in which to behave, how much time should be invested in a particular task, and decisions for how long one should pursue the task (Dinther, Dochy, & Segers, 2011). It was also reported an individual's self-efficacy would affect his/her feelings. For example, if an individual felt nervous or incompetent in completing a task, the individual would feel as if the task was overwhelming when in fact the task may not be. Before even beginning the task, the individual would most likely choose not to complete the task; or if required to complete

the task, he/she would do poorly in performing the task. Or, if an individual felt confident or competent in completing a task, the individual would challenge him/herself by setting goals to accomplish the task (Bandura, 1986).

According to Bandura (1977), one's perceived self-efficacy is reliant on four factors, "performance accomplishments, vicarious experiences, verbal persuasion, and physiological states" (p. 195). Before the four factors can influence self-efficacy, an individual must cognitively process and reflect on incoming information (e.g., demonstrations, performances, feedback, and emotional reactions) to determine how the information should be considered and utilized in making the decision to perform (or not perform) a related task (Pendergast et al., 2011). In terms of performance accomplishments, Bandura (1977) explained when someone had multiple experiences of success, his/her perceived self-efficacy in successfully completing future-related performances would increase. He also explained the opposite would occur for an individual. When someone had experienced failures as a result of performances, his/her perceived self-efficacy in completing future-related performances would decrease. Performance accomplishments are known to be the most, "powerful influence as they provide authentic evidence of one's performance" (Pendergast et al., 2011, p. 47). The second factor, vicarious experiences, as Bandura described, were experiences that allowed an observer to gain confidence after watching others' performances with a minimal amount of negative consequences. Bandura and Barab (1973) held the process of observing others would afford observers with the ability to persuade themselves in completing a performance; however, observing others performing was not considered to be as significant as the factor, performance accomplishments. The third factor for

influencing perceived self-efficacy was verbal persuasion. Verbal persuasion was considered the most readily available factor for impacting perceived self-efficacy but not as significant as performance accomplishments. Bandura (1977) explained the importance of verbal persuasion as, "People are led, through suggestion, into believing they can cope successfully with what has overwhelmed them in the past" (p. 198). The fourth and final factor influencing perceived self-efficacy, according to Bandura (1977), was emotional arousal. Emotional arousal is what the physical body encounters when faced with a challenge. Out of the four factors, emotional arousal was known to have the least amount of significance on perceived self-efficacy; however, it was significant in terms of an individual placing value on a specific performance. If an increased value was placed on a performance, then an individual's body physically reacted at a higher rate (e.g., heart racing) (Bandura, 1989).

Various studies have reported the effects of teacher self-efficacy. Self-efficacy has been shown to be a significant contributing factor related to teachers' attitudes and beliefs about teaching and their students' learning (Guo et al., 2011; Holzberger, Philipp, & Kunter, 2013; Justice et al., 2008; Sezgin & Erdogan, 2015; Tschannen-Moran & Hoy, 2001). Tschannen-Moran and Hoy (2001) found teachers' self-efficacy to affect their personal thoughts and actions related to teaching in terms of their, "enthusiasm, planning, organization, and effort" (p. 17). Teachers with higher levels of self-efficacy expressed feeling equipped to assess their students' learning and develop innovative teaching strategies to meet their students' needs (Guo et al., 2011; Holzberger et al., 2013; Justice et al., 2008). Moreover, a positive learning environment has also been attributed to teachers' self-efficacy (Tschannen-Moran & Barr, 2004). Lastly, Klassen, Tze, Betts, and

Gordon (2011) found teachers' self-efficacy to predict the amount of time and energy teachers invest in planning, teaching, and assessing.

PRE-SERVICE TEACHER SELF-EFFICACY

Pre-service teacher self-efficacy can be explained as, "A teacher's belief in his or her ability to complete the steps required to accomplish a particular teaching task in a given context" (Jamil, Downer, & Pianta, 2012, p. 119). Hoy (2000) defines teacher self-efficacy as one having confidence to positively impact students' learning. The key term in the abovementioned definition is belief. The pre-service teacher's belief, confidence in or lack thereof, in accomplishing a task affects his/her self-efficacy in terms of teaching (Tschannen-Moran, Hoy & Hoy, 1998). It is not uncommon for pre-service teachers to have higher levels of self-efficacy when entering a teacher preparation program, experience a decline of their self-efficacy in the middle of the program, and then experience a "rebound" (Roberts, Harlin, & Briers, 2008, p. 22) in their self-efficacy when completing the student teaching experience (Bakar et al., 2012; Kim & YoonJung, 2014; Pendergast et al., 2011; Roberts et al., 2008; Woodcock, 2011). Researchers reported pre-service teachers beginning their programs believed to have a good understanding of what it meant to be a teacher. Once they progressed throughout their teacher preparation programs and were afforded with authentic teaching experiences, pre-service teachers began to understand that their original ideas of teaching were limited and/or incorrect which influenced the decline in their self-efficacy of teaching. However, after they experienced a variety of teaching experiences throughout the teacher preparation programs and received feedback regarding their teaching practices, pre-service teachers' self-efficacy increased as they began to feel confident in their abilities

to teach based on past, successful teaching experiences (Bakar et al., 2012; Kim & YoonJung, 2014; Pendergast et al., 2011; Roberts et al., 2008; Woodcock, 2011).

Researchers found pre-service teachers' self-efficacy to be higher as they exited their teacher preparation programs but decreased during their first years of teaching. Nevertheless, little research has been conducted to explore what factors have influenced the decline in self-efficacy in the early years of teaching (Kim & Cho, 2014; Meristo, Ljalikova, & Lofstrom, 2013; Woodcock, 2011). Researchers hypothesized that pre-service teachers' cultural backgrounds and previous experiences influence their beliefs of self-efficacy (Ahsan, Deppeler, & Sharma, 2013; Loreman, Sharma, & Forlin, 2013; Siwatu, Frazier, Osaghae, & Starker, 2011). If pre-service teachers have not had experiences of teaching students of various backgrounds and needs (e.g., student teaching in classrooms with learners representing various cognitive abilities and cultural backgrounds) that are different than previously experienced, then they cannot intentionally reflect on something that had not occurred. By providing or not providing reflective opportunities within the contexts of diverse classroom settings, pre-service teachers' self-efficacy will potentially be affected (Ahsan et al., 2013; Loreman et al., 2013; Siwatu et al., 2011).

Researchers discovered pre-service teachers' self-efficacy increased when they (1) cognitively process information from previous performances and/or experiences; (2) analyze the effectiveness of previous performances and/or experiences; and (3) use their analyses to plan or reconstruct their future teaching decisions in order to meet their students' needs (Pendergast et al., 2011). Dinther, Dochy, and Segers (2011) noted, "Students' [pre-service teachers'] self-efficacy, as a key factor of human agency,

mediates several determinants of competence (e.g., skill, knowledge, ability, or former achievements) and their subsequent performances" (p. 97). Soini et al. (2015) described human agency as affecting an individual's motivation and abilities to, "act intentionally, make decisions and thoroughly reflect on the impact of one's actions" (p. 641). Furthermore, Soini et al. (2015) found the sense of agency to inspire individuals to actively engage in ongoing learning opportunities (e.g., professional development).

PERFORMANCE ACCOMPLISHMENTS

Bandura (1977) noted one's self-efficacy changed as a result of one or more of the four factors, "performance accomplishments, vicarious experiences, verbal persuasion, and physiological states" (p. 195). The factor, performance accomplishments, has been found to be the most significant factor for influencing self-efficacy. When one has demonstrated competence in accomplishing a task, his/her perceived self-efficacy increases in his/her abilities to accomplish a similar task (Bandura, 1997; Pendergast et al., 2011). Woodcock (2011) found teaching experiences (e.g., performance accomplishments) to have more of an impact on pre-service teachers' self-efficacy than other factors (e.g., education courses). Bandura (1997) explained the influence of performance accomplishments on self-efficacy as, "…they provide the most authentic evidence of whether one can muster whatever it takes to succeed. Successes build a robust belief in one's personal efficacy" (p. 78).

Dinther et al. (2001) conducted a meta-analysis to find relationships between self-efficacy studies. The studies ranged from 1990 to the present. Dinther et al. (2001) identified 14 of the 39 self-efficacy studies as relating to teacher education. Of those 14 studies, the researchers found students' self-efficacy (i.e., pre-service teachers' self-

efficacy) to increase as a result of treatments or interventions. A treatment or intervention can be defined as an activity that allows for a developmental process to occur (e.g., teaching portfolio). Furthermore, the researchers discovered treatments aligned with one or more of Bandura's (1977) four factors had more of an impact on students' self-efficacy as opposed to those that were not built on Bandura's theory. Finally, Dinther et al. (2001) found performance accomplishments as having the most significant influence on students' efficacy in terms of their abilities to set goals, self-reflect, self-regulate, and monitor their learning.

The teaching portfolio is one way in which pre-service teachers can provide authentic representations of their teaching abilities for planning, instruction, assessment, and reflection (Hartnett-Edwards, 2013; Imhof & Picard, 2009; Lyons, 1994). In terms of authentic representations of pre-service teachers' abilities, Lambe, McNair, and Smith (2013) explored e-teaching portfolios and its effects on pre-service teachers' perceptions of competence. The pre-service teachers described an appreciation for developing the e-teaching portfolio as the portfolio provided opportunities for individuality. One pre-service teacher noted, "It was good to be able to create a portfolio that reflected me as an individual" (p. 191).

The process of developing a teaching portfolio can be identified as providing pre-service teachers with what Bandura (1997) described as performance accomplishments, the most influential factor for building self-efficacy. Through the process of developing a teaching portfolio, pre-service teachers are able to intentionally select artifacts that represent "knowledge and skill" (The National Commission on Teaching & America's Future, 1996, p. 129). Bandura (1997) acknowledged, "…knowledge and skill does not

produce high attainments if people lack the self-assurance to use them well" (p. 80). To go beyond providing evidence of knowledge and skill, pre-service teachers are asked to reflect on their teaching abilities throughout the development of a teaching portfolio. Meristo et al., (2013) found self-assessment and self-reflection to be the key contributors to influencing pre-service teachers' self-efficacy. Therefore, the key in the development of a teaching portfolio is for pre-service teachers to consistently self-assess and reflect on their artifacts and teaching practices by describing, explaining, justifying and analyzing the impact of their teaching decisions and practices in relation to their professional development and students' learning (Ahul & Daniel, 2014; Anderson & DeMeulle, 1998; Antonek et al., 1997; Borko et al., 1997; Chung, 2008; Groom & Maunonen-Eskelinen, 2006; Hartnett-Edwards, 2013; Klenowski, 2000; Lyons, 1996; Okhremtchouk et al., 2009; Pecheone & Chung, 2006; Pecheone et al., 2005; Peck & McDonald, 2013; Shulman, 1986; Stanford Center for Assessment, Learning & Equity, 2015; Stone, 1998).

Hartnett-Edwards (2013) conducted a study to examine a new teaching portfolio, Demonstration of Learning (DOL) with a small group of pre-service teachers. The purpose of the study was to investigate the effects of the teaching portfolio on pre-service teachers' thoughts regarding the purpose of the new portfolio. The DOL was formerly known as Teacher Work Sample (TWS); however, the teacher preparation program revised TWS to reflect current trends in the literature related to teaching portfolios and teacher performance assessment in addition to reflecting the program's core values. Hartnett-Edwards found the teaching portfolios to positively affect pre-service teachers' perceptions regarding the purpose of the new portfolio. For example, one secondary education pre-service teacher stated, "I feel like portfolios are a nice way to connect what

could be our future employers with tangible evidence of our competencies and bodies of work" (p. 158). The most beneficial aspect of the teaching portfolio that the pre-service teachers described was being given the opportunity to watch their teaching videos to analyze their teaching. One elementary education pre-service teacher (2013) said, "I thought the video observation was very useful, not only as an assignment but as a way to self-reflect about our own work and improve it" (p. 159). A secondary education pre-service teacher (2013) described the analysis of teaching as, "It forced me to evaluate and critically think about almost every moment in my lesson. I felt it was our version of what football coaches do when they watch film" (p. 159).

Gallant and Mayer (2012) conducted a study with 202 Malaysian pre-service teachers that completed the structured portfolio, Teacher Performance Assessment (TPA), during their student teaching experiences. The purpose of the study was to examine pre-service teachers' perceptions of professional growth through the development of the teaching portfolio, TPA. The pre-service teachers described noticing growth in their professional development in terms of reflection. The increase in pre-service teachers' abilities to reflect promoted a more focused approach to assessing their students' learning. Furthermore, pre-service teachers found the structured portfolio to be similar to how their cooperating teachers were being evaluated which led to common understandings and richer and more confident conversations regarding professional, teaching practices (2012). Strudler and Wetzel (2012) attributed common understandings and richer conversations to, "Portfolios make learning visible, and thus faculty and students focus on learning in new ways" (p. 162).

Okhremtchouk et al. (2013) explored 20 pre-service teachers' levels of confidence after completing the teaching portfolio, Performance Assessment for California Teachers (PACT). Pre-service teachers were asked to rate their confidence levels prior to and after completing PACT. The researchers found pre-service teachers to rate their levels of confidence higher in all of PACT's constructs for planning, instruction, and assessment as compared to the evaluations by their clinical faculty members (i.e., university supervisors). The largest discrepancy in levels of confidence and official PACT scores was in relation to the construct of academic language. Pre-service teachers rated their confidence in academic language significantly higher than their PACT scores, provided by their clinical faculty members, for academic language. Although there were differences in pre-service teachers' confidence levels and scores, the pre-service teachers did describe the process of developing the teaching portfolio as positive. In particular, pre-service teachers felt after completing PACT to be more confident in their abilities to provide differentiated instruction, be aware of effective teaching strategies (i.e., what works and what does not), develop authentic assessments, and use data from the assessments to make informed, instructional decisions (2013).

Forawi et al. (2012) conducted a study to test the hypothesis regarding electronic, teaching portfolios, "If e-portfolios were to be used by pre-service teachers, they need to be successful in accomplishing their goals, worth the time spent in creating them and advance learning and completion of programs" (p. 100). Sixty-seven pre-service teachers participated in the study by rating their experiences and providing open-ended responses after completing the teaching portfolio. Overall, pre-service teachers noted positive outcomes after completing the electronic, teaching portfolio. Consistently, pre-service

teachers described feeling more confident in their preparedness for entering the profession. The qualities of teacher preparedness were described by the pre-service teachers as willingness to exhibit flexibility, self-evaluation related to teaching standards, confident in content knowledge, and equipped to positively affect students' learning (Forawi et al., 2012).

Although positive results, in terms of pre-service teachers' self-efficacy, have been discovered throughout the development of teaching portfolios (Forawi et al., 2012; Gallant & Mayer, 2012; Hartnett-Edwards, 2013; Okhremtchouk et al., 2013; Strudler & Wetzel, 2012), some studies have indicated barriers. In a first attempt for implementing teaching portfolios, Oakley, Pegrum, and Johnston (2014) discovered their pre-service teachers noted levels of frustration throughout the process of constructing the portfolio. The pre-service teachers' main frustration was the inconsistent feedback provided by their instructors. The researchers noted, "This may indicate that lecturers remain unconvinced of the efficacy of e-portfolios" (Oakley et al., 2014, p. 46). It was noted that the instructors providing feedback had little to no training prior to the implementation of the teaching portfolios. Imhof and Picard (2009) had a similar finding in their study related to the lack of training for their instructors and the impact on their pre-service teachers' development of teaching portfolios. Imhof and Picard (2009) stated, "We found a large variance in terms of satisfaction with the portfolio across learning groups and that much of the perceived usefulness depended on the credibility of the instruction" (p. 153).

One additional frustration that emerged for pre-service teachers developing their teaching portfolios was the amount of time it took to reflect on their teaching decisions and practices (Imhof & Picard, 2009; Oakley et al., 2014; Okhremtchouk et al., 2013).

Pre-service teachers described a dissatisfaction with having to formally reflect throughout the process of developing the teaching portfolio. The pre-service teachers explained they did not need to have a formal platform to reflect because they informally reflected without being prompted to do so. Furthermore, when comparing pre-service teachers' self-efficacy related to professional development through the development of a teaching portfolio with those that had not developed a teaching portfolio, there were no significant differences between the two groups (Imhof & Picard, 2009). The researchers also pointed out that the implementation of the teaching portfolio was new for both groups. Their pre-service teachers expressed concerns regarding not having a clear understanding of the purpose and the expectations which may have resulted in the barriers for implementing teaching portfolios (Imhof & Picard, 2009; Oakley et al., 2014).

To help eliminate barriers when implementing teaching portfolios, Barry and Shannon (1997) described the following procedures: (1) provide clear explanations of the purpose and expectations; (2) develop clear, evaluative criteria; (3) provide opportunities to reflect and self-evaluate on teaching decisions and practices throughout the teacher preparation program; (4) train all members associated with the implementation of teaching portfolios (e.g., faculty, cooperating teachers); and (5) provide plenty of time to develop the teaching portfolio.

edTPA TEACHING PORTFOLIO AND TEACHER PERFORMANCE ASSESSMENT

The teaching portfolio and teacher performance assessment, edTPA, originated from Stanford University's College of Education and with support from the American Association of Colleges for Teacher Education, educators (both P-12 and higher education), and members associated with the National Board for Professional Teaching

Standards. The purpose for developing edTPA was to establish common expectations and understandings of pre-service teachers' competencies prior to being recommended for teacher licensure (Darling-Hammond, 2012; Education Digest, 2013; Lu, 2013). The edTPA was developed based on the INTASC standards and is similar to the framework of NBPTS in that it evaluates pre-service teachers' abilities to plan, instruct, and assess their students within the context of their student teaching experiences. It should be noted the formerly known INTASC standards are now recognized as InTASC standards for all teachers as opposed to only new teachers (Council of Chief State School Officers, 2011).

Pre-service teachers' competencies of reflection in regard to their planning, instruction, and assessments are evaluated after completing the edTPA teaching portfolio. Through reflective analysis, pre-service teachers are asked to describe, explain, justify, and analyze their teaching decisions and practices based on their students' needs and learning (Stanford Center for Assessment, Learning & Equity, 2015). Since edTPA's national field test as a performance assessment in 2011, the assessment gained national momentum as more than 600 teacher preparation programs in more than 40 states have piloted or adopted the teacher performance assessment to be used as one measure for guaranteeing pre-service teachers are ready to teach upon being recommended for licensure (Darling-Hammond & Hyler, 2013; Margolis & Doring, 2013; Sato, 2014; Stanford Center for Assessment, Learning & Equity, 2015).

The edTPA teaching portfolio's cycle of teaching is represented within the portfolio by three tasks- planning, instruction, and assessment. Task 1, the planning task, pre-service teachers submit artifacts that include lesson plans and materials for students to develop and/or deepen knowledge of content; differentiation of learning tasks to attend

to students' diverse learning needs and personal, cultural, and/or community assets; opportunities for students to learn and use academic language; and assessments to monitor and support students' learning. Furthermore, pre-service teachers are asked to explain, describe, justify, and support with research and/or theory how their planning artifacts meet the needs of their students (Stanford Center for Assessment, Learning & Equity, 2013).

In Task 2, the instruction task, pre-service teachers submit video evidence that demonstrates a positive, safe learning environment; engagement of students when learning the content; attention to higher-order questioning; demonstration of pedagogical skills (e.g., modeling an essential literacy strategy and providing opportunities for students to practice), analysis of teaching effectiveness (i.e., reflecting); development of next steps for instruction to support students' learning; and support instructional next steps with research and/or theory (Stanford Center for Assessment, Learning & Equity, 2013).

In Task 3, the assessment task, pre-service teachers provide evidence for analysis of their students' learning by describing trends and patterns for the whole class and individual students; specific, content-related feedback for their students, noting areas of strength and areas for improvement; opportunities for students to use the feedback; analysis of students' academic language use; and description of next steps for instruction based on the analysis of their students' learning (Stanford Center for Assessment, Learning & Equity, 2013).

After the tied-to-licensure state's pre-service teachers have developed the edTPA teaching portfolio, the portfolios are submitted to be officially scored by trained, content-

specific educators not affiliated with the college and/or university. Official scorers are assessing pre-service teachers' competencies in: meeting the needs of their students by developing lesson plans, instructional materials, and assessments that attend to their students' needs, prior learning, and interests; providing a safe learning environment for all students; engaging their students within the learning environment; analyzing their teaching effectiveness; proposing changes to their teaching practices in order to meet students' needs and interests; analyzing their students' learning; and describing next steps for instruction based on the analysis of their students' learning (Stanford Center for Assessment, Learning & Equity, 2013). Each pre-service teachers' edTPA teaching portfolio is assessed with 15 rubrics, and each rubric has five levels. The levels indicate: Level 1 represents unsatisfactory for a beginning teacher; Level 2 represents emerging for a beginning teacher; Level 3 represents satisfactory for a beginning teacher; Level 4 represents accomplished for a beginning teacher; and Level 5 represents highly accomplished for a beginning teacher (Stanford Center for Assessment, Learning & Equity, 2013).

Lin (2015) explored the learning opportunities elementary, pre-service teachers experienced while going through the process of developing the edTPA teaching portfolio. Seven elementary pre-service teachers participated in the mixed-methods study. Overwhelmingly, the pre-service teachers described the process as providing a more cognizant view of their students' learning. The pre-service teachers also found analyzing their students' learning led to an increase in their abilities to describe trends and patterns related to their students' learning. Although the pre-service teachers indicated an agreement to the time-consuming nature of developing the edTPA teaching portfolio, the

pre-service teachers also indicated a strong agreement for learning what it meant to become effective teachers. Also, the pre-service teachers noted a more mindful approach to the planning process. Additionally, the pre-service teachers noted the process of evaluating their videos of teaching to afford a deeper analysis of their teaching practices and assisted them in making changes to their teaching practices. Finally, the pre-service teachers rated the process of developing the edTPA teaching portfolio as not assisting them in getting to know their students better (Lin, 2015).

SUMMARY

Related to the edTPA teaching portfolio, additional researchers have investigated the implementation process (Burns, Henry, & Lindauer, 2015; Margolis & Doring, 2013); pre-service teachers' scores as compared to other states (Hildebrandt & Swanson, 2014); the impact on teaching practices and reflective practice (Saylor, 2013); and the benefits and issues (Lunsford, 2015). Little is known about the effects of developing the edTPA as a teaching portfolio on pre-service teachers' self-efficacy, specifically their confidence in regard to the edTPA's constructs for planning, instruction, and assessment within a tied-to-licensure state. Therefore, the researcher proposed to answer the following research questions:

(1) To what extent does developing the edTPA as a teaching portfolio affect the teaching self-efficacy of pre-service teachers in a teacher preparation program?

(2) How did pre-service teachers perceive their experiences after completing the edTPA teaching portfolio?

Researchers have investigated the effects of other teaching portfolios in terms of pre-service teacher professional development and confidence (Forawi et al., 2012; Gallant & Mayer, 2012; Harnett-Edwards, 2013; Okhremtchouck et al., 2013), but there is little empirical research investigating the effects of developing the edTPA teaching portfolio on pre-service teachers' self-efficacy in regard to planning, instruction, and assessment. Moreover, there is little empirical evidence to indicate the effects of developing a teaching portfolio within a tied-to-licensure state. Therefore, this study addressed the effects of the development of the edTPA teaching portfolio on pre-service teachers' self-efficacy within a tied-to-licensure state.

The results from this study will benefit teacher educators, stakeholders, and pre-service teachers. It is imperative to collect evidence from pre-service teachers indicating their readiness to teach prior to being recommended for teacher licensure (e.g., contents within the portfolio) (Darling-Hammond, 2010). Furthermore, there is a critical need to collect evidence of pre-service teachers' perceptions of teaching self-efficacy, also known as confidence. Teachers indicating increased levels of teaching self-efficacy described an influence in their beliefs of their teaching effectiveness, beliefs in their abilities to provide effective instruction for their students, and attitudes toward the profession (Guo et al., 2011; Hallinan, 2008; Justice et al., 2008; Kelm & McIntosh, 2012; Sezgin & Erdogan, 2015; Tschannen-Moran & Hoy, 2001; Tschannen-Moran et al., 1998).

By investigating pre-service teachers' self-efficacy, teacher educators, stakeholders, and pre-service teachers can recognize the process of developing the edTPA teaching portfolio as having "transformative power" (Lyons, 1998, p. 4) in pre-service

teachers' self-efficacy. Bandura (1977) stated, "It might be argued that self-efficacy proved to be an accurate predictor of performance in the enactive mode of treatment because subjects were simply judging their future performance from their past behavior" (p. 211). Therefore, this investigation of pre-service teachers' self-efficacy will allow inferences to be made of pre-service teachers' confidence for planning, instruction, and assessment, which can be used to inform future planning, instruction, and assessment practices/performances.

CHAPTER 3

METHODOLOGY

The purpose of this study was to investigate the effects of developing edTPA as a teaching portfolio on pre-service teachers' self-efficacy, specifically their perceptions of confidence related to the edTPA's constructs of planning, instruction, and assessment within a tied-to-licensure state. The development of a teaching portfolio has been shown to positively affect pre-service teachers' self-efficacy/confidence. Pre-service teachers noted the process of developing the teaching portfolio to increase their confidence in solving problems related to classroom issues, evaluating teaching practices and students' learning, and analyzing their teaching practices and students' learning, making informed decisions based on assessment data, exhibiting flexibility, strengthening content knowledge, and having meaningful, professional conversations with peers and professionals (e.g., cooperating teachers and principals) (Forawi et al., 2012; Gallant & Mayer, 2012; Hartnett-Edwards, 2013; Okhremtchouk et al., 2013; Strudler & Wetzel, 2012).

Self-efficacy has been shown to influence teachers' dispositions and philosophies regarding teaching and students' learning (Guo et al., 2011; Holzberger, Philipp, & Kunter, 2013; Justice et al., 2008; Sezgin & Erdogan, 2015; Tschannen-Moran & Hoy, 2001). In terms of teachers' dispositions, Tschannen-Moran and Hoy (2001) found teachers' self-efficacy to affect their eagerness, preparation, and perseverance. Additionally, teachers with increased levels of self-efficacy have been shown to promote a positive learning environment that values the individuality of students (Klassen et al.,

2011; Tschannen-Moran & Barr, 2004). In regard to teachers' philosophies, teachers who indicated increased levels of self-efficacy noted feeling prepared to assess their students and provide learning tasks based on their assessments to meet students' needs (Guo et al., 2011; Holzberger et al., 2013; Justice et al., 2008).

To date, there have been few studies examining the edTPA teaching portfolio, and none of these studies examined the effects of the edTPA teaching portfolio on pre-service teachers' self-efficacy. Therefore, this study investigated the effects of the development of the edTPA teaching portfolio on pre-service teachers' self-efficacy within a tied-to-licensure state. This investigation of pre-service teachers' self-efficacy could allow teacher educators, stakeholders, and pre-service teachers to make inferences of pre-service teachers' confidence for planning, instruction, and assessment, which can be used to inform future planning, instruction, and assessment practices/performances.

The researcher answered the following research questions:

(1) To what extent does developing the edTPA as a teaching portfolio affect the teaching self-efficacy of pre-service teachers in a teacher preparation program?

(2) How did pre-service teachers perceive their experiences after completing the edTPA teaching portfolio?

RESEARCH DESIGN

To study the effects of developing the edTPA teaching portfolio on pre-service teachers' self-efficacy, the researcher employed a mixed methods sequential explanatory design. A sequential explanatory design is one that allows the researcher to collect quantitative data over a period of time, along a continuum, with a follow-up collection of

qualitative data (Ivankova, Creswell, & Stick, 2006). This study consisted of two phases: phase one, quantitative and phase two, qualitative. The quantitative data collected from the self-assessment rubrics throughout the process of developing the edTPA teaching portfolio was used to inform the purposeful sample for the qualitative phase.

The quantitative phase of the study investigated if pre-service teachers' self-efficacy (dependent variable) changed over time (independent variable) after developing the edTPA teaching portfolio with a pre/post Self-Efficacy Survey. The process of developing the edTPA teaching portfolio was considered as the intervention within the quantitative phase of the study. Additionally, the researcher asked pre-service teachers to self-assess their performances for planning (Task 1), instruction (Task 2), assessment (Task 3), and reflection of teaching (embedded in all three tasks) by using the edTPA rubrics, located in the edTPA, content-specific Handbooks developed by Stanford Center for Learning, Assessment & Equity (edTPA Handbooks/rubrics can be found at www.edtpa.aacte.org). The pre-service teachers' self-assessments from the 15 edTPA rubrics were used as a data point to inform the qualitative phase (i.e., cases). To determine the cases, the researcher ordered the mean rubric score. Then, the data were divided into four quartiles. Q4 was identified as the high group, and Q1 was identified as the low group. Pre-service teachers within Q4 (i.e., high levels of self-assessment scores) were asked to participate in an individual, semi-structured interview when he/she received the official, edTPA scores; and, pre-service teachers within Q1 (i.e., low levels of self-assessment scores) were asked to participate in an individual, semi-structured interview when he/she received the official, edTPA scores.

The purpose for conducting the qualitative phase of the study was to, "make sense of or interpret phenomena in terms of the meanings people bring to them" (Denzin & Lincoln, 2011, p. 3). In the qualitative phase, the pre-service teachers were given opportunities to explain and describe how the development of the edTPA teaching portfolio affected their self-efficacy/confidence. The researcher constructed two cases to determine the similarities and differences of pre-service teachers' experiences for developing the edTPA teaching portfolio. The cases were: (1) Case 1, one pre-service teacher within Q4 (i.e., high self-assessment mean scores of 3.67 - 4.33); and (2) Case 2, one pre-service teacher within Q1 (i.e., low self-assessment mean scores of 2.73 - 3.05). A study of cases is, "An empirical inquiry that investigates the case or cases by addressing the how or why questions concerning the phenomenon of interest" (Yazan, 2015, p. 138).

When developing the case(s), Yin (2009) recommended that researchers construct an initial theory aligned with the focus of the study. Rule and John (2015) explain, "…cases are selected in order to test a theory and explanatory in its use of a theory" (p. 9). The initial theory for this study is rooted in Bandura's theory of self-efficacy. Bandura (1977) described self-efficacy as being influenced by four factors, "performance accomplishments, vicarious experiences, verbal persuasion, and physiological states" (p. 195). The first factor, performance accomplishments (e.g., teaching portfolio), has been shown to have the most significant influence in terms of increasing self-efficacy. If an individual has experienced several successes, he/she will feel more confident in his/her abilities to successfully complete future-related skills or tasks (Bandura, 1977). The process of developing the edTPA teaching portfolio can be classified as a performance

accomplishment because the process allows the pre-service teacher to select "authentic evidence of one's performance" (Pendergast et al., 2011, p. 47) and to reflect on his/her authentic evidence (Stanford Center for Assessment, Learning & Equity, 2014). As Bandura (1997) noted, the reflective process of one's performance is the key, contributing factor to affecting self-efficacy/confidence. By reflecting on the performance accomplishment(s), one can establish judgements of his/her future, similar performances (Bandura, 1977).

Pre-service teachers within both cases were asked a series of semi-structured interview questions. Semi-structured interviews provide the researcher with an organized structure to follow during the interview process but allow the researcher and participants to converse without restrictions (Kvale, 1996). Opie (2004) emphasized the importance of establishing a positive rapport during the interview and believed the semi-structured approach would assist in establishing a positive rapport with participants.

POPULATION AND SAMPLING

The population for this study consisted of pre-service teachers from a teacher preparation program. The pre-service teachers were required to develop the edTPA teaching portfolio during their student teaching experiences as one of the state's requirements for seeking teacher licensure. See Table 2 for the number of participants representing various fields from the teacher preparation program.

For this study, pre-service teachers representing the Foreign Language Education and Special Education programs did not participate. The edTPA World Language and Special Education Handbooks have differences in terms of constructs and expectations that would have made inclusion of the data from these two programs problematic. Also,

pre-service teachers within the Early Childhood Education program are required to complete a fourth task within the Elementary edTPA teaching portfolio as opposed to other programs that complete three tasks. Early Childhood Education pre-service teachers' self-efficacy and self-assessment for the first three tasks for planning, instruction, and assessment were included in this study; however, their self-efficacy and self-assessments for Task 4 were not included.

A sample of the population was selected as cases to participate in the individual, semi-structured interviews based on their self-assessment scores. All 15 self-assessment rubrics were averaged; then, the mean was ordered from least to most and divided into quartiles. The selection for the high self-assessment group was included in the high quartile (i.e., Q4). The selection for the low self-assessment group was included in the bottom quartile (i.e., Q1). The selection for the low self-assessment group was inclusion in the low quartile (i.e., Q1). Flyvbjerg (2011) cautioned researchers when conducting case studies by explaining, "Statistical significance is often unknown or unclear" (p. 314). By using the quantitative data to make decisions for the development of the cases, the researcher anticipates the statistical significance to be known and clear (Flyvbjerg, 2011). Figure 2 presents the population and sampling flowchart.

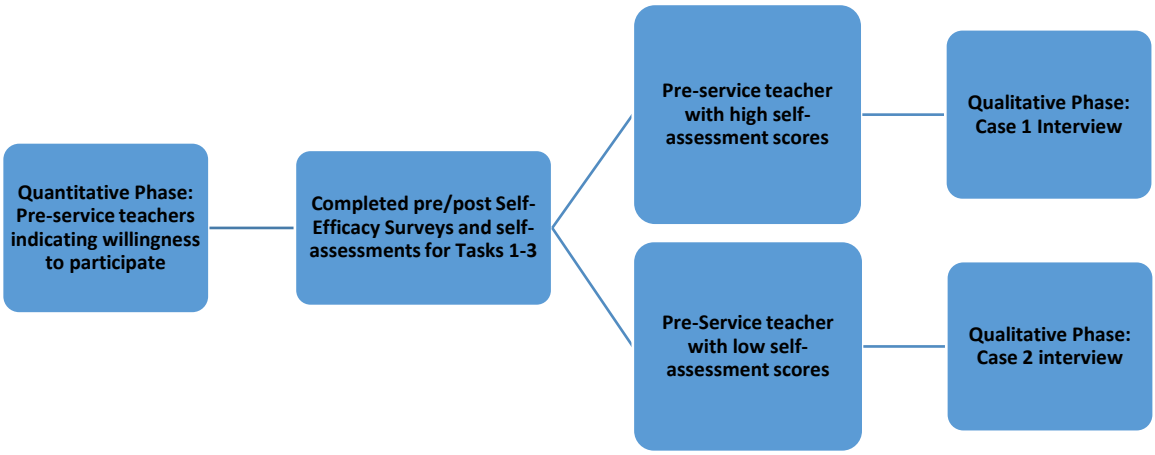
Quantitative Phase: Pre-service teachers indicating willingness to participate
Completed pre/post Self-Efficacy Surveys and self-assessments for Tasks 1-3
Pre-service teacher with high self-assessment scores
Qualitative Phase: Case 1 Interview
Pre-Service teacher with low self-assessment scores
Qualitative Phase: Case 2 interview

Figure 2. Population and sampling flowchart.

INSTRUMENTATION

Self-efficacy survey. The researcher developed and piloted a Self-Efficacy Survey that was based on the edTPA constructs for planning (6 items), instruction (9 items), and assessment (6 items) (see Appendix A). For the pilot study, the Self-Efficacy Survey was administered to pre-service teachers after completing the edTPA teaching portfolio. The survey used a 21- item, four point Likert scale on which pre-service teachers rated their levels of confidence/self-efficacy. The levels for the Likert scale pre/post Self-Efficacy Survey were: not confident at all, somewhat confident, confident, and very confident. The purpose of the Self-Efficacy Survey was to investigate if the dependent variable, pre-service teachers' self-efficacy, changed over time after developing the edTPA teaching portfolio. Time was identified as the independent variable, and the edTPA teaching portfolio was identified as the intervention that was developed over time.

After determining reliability and validity from the pilot study for the Self-Efficacy Survey, a 31-item pre/post Self-Efficacy Survey was developed. The survey used a 21-item, four point Likert scale on which pre-service teachers rated their levels of

confidence/self-efficacy prior to and at the conclusion of developing the edTPA teaching portfolio. The levels for the Likert scale pre/post Self-Efficacy Survey were: not confident at all, somewhat confident, confident, and very confident. Additionally, demographic data were collected in the pre Self-Efficacy Survey (first 10 items); however, not all variables were utilized in data analysis (see Appendix B). Furthermore, the post Self-Efficacy Survey (last 5 items) included covariate items related to the student teaching placement and self-assessment of the edTPA tasks (see Appendix C).

Self-efficacy survey pilot. At the conclusion of the spring 2016 semester and after completing the edTPA teaching portfolio, the Self-Efficacy Survey was piloted to establish reliability and validity. Prior to submission for official scoring, an e-mail was sent to 66 pre-service teachers inviting them to participate in the pilot study. After the pre-service teachers submitted their teaching portfolios for official scoring, they were verbally reminded of the survey link that was sent to them. Of the potential 66 pre-service teachers who received the e-mail invitation, 51 responded to the survey, which yielded a 77.3% response rate. The participants included a sample of 46 pre-service teachers who represented the teacher preparation programs included in this study and were considered valid cases without missing data. Of these 46 participants, 33 (71.7%) were female, and 13 (28.3%) were male. The racial makeup of the group was 38 (82.6%) White, 6 (13.0%) Black, 1 (2.2%) Hispanic, and 1 (2.2%) other. Table 1 presents the frequencies and percentages for the participants' teacher education programs.

Table 1

Frequencies and Percentages for Participants' Teacher Education Program

Teacher Education Program	*n*	%
Early Childhood Education	9	19.6
Health and Physical Education	3	6.5
Middle Grades	2	4.3
Music Education	7	15.2
Secondary English	2	4.3
Secondary History	3	6.5
Secondary Mathematics	7	15.2
Secondary Science Education	6	13.0
Theatre Education	7	15.2
Total	46	100.0

A series of reliability analyses were conducted to determine if the item responses within each scale were internally consistent. The alpha coefficient for Planning was .90, which included six items. Using Cronbach's alpha of .60 or greater as a criterion (George & Mallery, 2003), this result suggests that the items within the Planning scale were internally consistent. The alpha coefficient for Instruction was .91, which included nine items. Using Cronbach's alpha of .60 or greater as a criterion (George & Mallery, 2003), this result suggests that the items within the Instruction scale were internally consistent. The alpha coefficient for Assessment was .91, which included six items. Using Cronbach's alpha of .60 or greater as a criterion (George & Mallery, 2003), this result suggests that the items within the Assessment scale were internally consistent.

To determine the convergent validity of the items within each scale for planning, instruction, and assessment, the items were analyzed to determine the strength of the

relationship among each item and the remaining the scale items using the corrected item-total correlation (Hair et al., 2006). The criterion established for correlation coefficients was .10 as weak, .30 as moderate, and .50 as strong (Cohen, 1988). The correlation coefficients ranged from .67 to .79 for the Planning scale, from .57 to .81 for the Instruction scale, and from .66 to .79 for the Assessment scale. Based on the Cohen (1988) criteria, these results suggest that the items within each scale have a strong relationship and have convergent validity.

To measure discriminate validity, a bivariate correlation was conducted using the three scales (i.e., Planning, Instruction, and Assessment) from the Self-Efficacy Survey. The correlation coefficients ranged from .80 to .83. With a correlation coefficient less than or equal to .80 as a criterion (Hair et al., 2006), these results suggested that the scales are at the threshold for discriminant validity, indicating each scale did not measure the same concept but were close to measuring similar concepts. By the nature of teaching, the three concepts (i.e., planning, instruction, and assessment) are intertwined and have been found to have a cause/effect relationship (Brookhart, 1999). Therefore, it is not uncommon for the three concepts to have similarities.

Self-assessment. Pre-service teachers used the 15-edTPA rubrics to self-assess their planning, instruction, and assessment after completing each edTPA Task (i.e., Tasks 1, 2, and 3) and indicated the following per item: Level 1 represented unsatisfactory for a beginning teacher; Level 2 represented emerging for a beginning teacher; Level 3 represented satisfactory for a beginning teacher; Level 4 represented accomplished for a beginning teacher; and Level 5 represented highly accomplished for a beginning teacher (Stanford Center for Assessment, Learning & Equity, 2015).

Interviews. The semi-structured interview questions were developed as a means for following-up with pre-service teachers to determine if the experience for developing edTPA as a teaching portfolio affected their self-efficacy/confidence (see Appendix D).

PROCEDURE

IRB approval was obtained prior to the study. At the beginning of the fall 2016 semester, pre-service teachers participated in on-campus, edTPA Boot Camps. The purposes of the Boot Camps were to provide an overview of the edTPA teaching portfolio, expectations of the teaching portfolio, and to allow pre-service teachers opportunities to evaluate former pre-service teachers' edTPA teaching portfolios. Prior to attending the edTPA Boot Camps, the edTPA Graduate Assistant e-mailed the pre-service teachers an invitation to participate in the web-based pre Self-Efficacy Survey via their university email address on July 27, 2016. There was an anonymous link, which the pre-service teachers selected or copied and pasted into their internet browsers. The first page of the web-based survey included the Informed Consent. The pre-service teachers selected the appropriate radial within the web-based survey to indicate an agreement or disagreement to participate in the study. For pre-service teachers who choose not to participate, the survey concluded, and the response was recorded. For pre-service teachers who choose to participate, the survey opened, and they responded to each of the survey items.

Between the dates of August 1-5 of 2016, pre-service teachers participated in the first edTPA Boot Camp, each specific program (e.g., Early Childhood Education) attending on a different day. At the conclusion of each program's first edTPA Boot Camp, the edTPA Graduate Assistant explained the purpose of the study, which had been

previously e-mailed to them, and pre-service teachers were permitted to ask questions. Pre-service teachers were then given the opportunity to participate in the study by completing the survey, which was the quantitative data collection phase. A follow-up, e-mail reminder was sent by the edTPA Graduate Assistant on August 10, 2016. Throughout the development of the edTPA teaching portfolio, the pre-service teachers self-assessed their edTPA Tasks, using the official edTPA rubrics, after completing each edTPA task (i.e., Task 1, Task 2, and Task 3). After the self-assessment scores were collected and analyzed, the researcher invited a purposeful sample of pre-service teachers to participate in the individual interviews.

The timeline for data collection was:

At the conclusion of the first edTPA Boot Camp, the edTPA Graduate Assistant verbally explained the purpose of the study, and pre-service teachers were permitted to ask questions. After the edTPA Graduate Assistant verbally explained the purpose of the study, the pre-service teachers chose to participate in the study by completing the Self-Efficacy Survey.

August 29-31 & September 1-2, 2016 pre-service teachers participated in the second edTPA Boot Camp. At this Boot Camp, they completed edTPA teaching portfolio's Task 1 commentary for planning. At the conclusion of the second edTPA Boot Camp, pre-service teachers self-assessed Task 1, using the edTPA official rubrics.

October 3-7, 2016 pre-service teachers participated in the third edTPA Boot Camp. At this Boot Camp, they completed edTPA teaching portfolio's Task 2 commentary for instruction. At the conclusion of the third edTPA Boot Camp, pre-service teachers self-assessed Task 2, using the edTPA official rubrics.

October 17-21, 2016 pre-service teachers participated in the fourth edTPA Boot Camp. At this Boot Camp, they completed edTPA teaching portfolio's Task 3 commentary for assessment. At the conclusion of the fourth edTPA Boot Camp, pre-service teachers self-assessed Task 3, using the edTPA official rubrics.

October 26, 2016 the edTPA Graduate Assistant e-mailed the pre-service teachers the link for the post Self-Efficacy Survey.

November 1-3, 2016 pre-service teachers submitted their edTPA teaching portfolios for official scoring. After submitting their portfolios, the edTPA Graduate Assistant verbally explained the post Self-Efficacy Survey, and pre-service teachers were permitted to ask questions. Pre-service teachers initially indicating their willingness to participate in the study completed the post Self-Efficacy Survey.

November 4, 2016 the researcher analyzed pre-service teachers' responses to determine if there was a change in pre-service teachers' self-efficacy (pre to post).

November 11, 2016 the researcher analyzed self-assessment scores to identify the purposeful sample for the two cases. The first case was comprised of a pre-service teacher with high levels of self-assessment scores. The second case was comprised of a pre-service teacher with low levels of self-assessment scores.

The researcher developed semi-structured interview questions for the two cases; however, two interview questions were added based on the analyzed, quantitative data. First, the post self-efficacy covariate data indicated pre-service teachers' self-efficacy ratings were influenced by their cooperating teachers' roles throughout the development of the edTPA teaching portfolio. Second, the self-assessment data indicated pre-service teachers self-assessed themselves higher than the self-efficacy ratings and official,

external edTPA scores. Therefore, a Modification Form for IRB was submitted to receive approval for the modified semi-structured interview questions.

December 1, pre-service teachers' official edTPA scores returned.

December 1, the researcher e-mailed the pre-service teachers who consented to participate in the study.

December 5-6, the researcher conducted individual interviews. The interviews were audio-recorded.

December 7-23, the audio recordings from the focus group interviews were transcribed and coded to determine emerging themes.

Intervention. The edTPA teaching portfolio served as the intervention for this study and has three tasks. In Task 1, the planning task, pre-service teachers develop three-to-five days of lessons, instructional materials, and assessments that promote students' abilities to develop content knowledge; represent students' various learning competencies; provide students with opportunities to learn and use academic language; and assess students' learning. Furthermore, pre-service teachers are required to explain, describe, justify, and support with research and/or theory how their lessons, instructional materials, and assessments meet the needs of their students (Stanford Center for Assessment, Learning & Equity, 2013).

In Task 2, the instruction task, pre-service teachers select video evidence that demonstrates providing a positive, safe learning environment; engaging students in learning the content; deepening students' learning; demonstrating proficiency in content-specific, pedagogical skills; reflecting on their teaching effectiveness; and describing next

steps for instruction and supporting instructional strategies with research and/or theory (Stanford Center for Assessment, Learning & Equity, 2013).

In Task 3, the assessment task, pre-service teachers provide evidence for analyzing their students' learning by describing trends and patterns for the whole class and individual students; providing specific, content-related feedback to their students, noting areas of strength and areas for improvement; providing students with opportunities to use the feedback; analyzing students' academic language use; describing next steps for instruction based on the analysis of their students' learning; and justifying how next steps for instruction are supported by research and/or theory (Stanford Center for Assessment, Learning & Equity, 2013).

After the pre-service teachers within the tied-to-licensure state have developed the edTPA teaching portfolio, the portfolios are submitted to be officially scored. Each pre-service teachers' edTPA portfolio is evaluated with fifteen rubrics, and each rubric has five levels. The levels indicate: Level 1 represents unsatisfactory for a beginning teacher; Level 2 represents emerging for a beginning teacher; Level 3 represents satisfactory for a beginning teacher; Level 4 represents accomplished for a beginning teacher; and Level 5 represents highly accomplished for a beginning teacher (Stanford Center for Assessment, Learning & Equity, 2013).

For the process of developing the edTPA teaching portfolio to be considered the intervention, the following activities were required for all pre-service teachers within the teacher preparation program, to include pre-service teachers that participated in the study:

1. Pre-service teachers participated in edTPA Boot Camps during the week of August 1-5, 2016 with each specific program (e.g., early childhood education) attending on a specified day.

2. By midnight on August 28, 2016 pre-service teachers submitted Context for Learning, learning segment, instructional materials, and assessments.

3. On August 29 – 31 & September 1-2, 2016 pre-service teachers participated in the second edTPA Boot Camp. At this Boot Camp, they completed edTPA teaching portfolio's Task 1 commentary for planning.

4. By midnight on September 4, 2016 pre-service teachers submitted their Task 1 commentaries for planning.

5. By midnight on October 2, 2016 pre-service teachers submitted their teaching videos for Task 2.

6. On October 3-7, pre-service teachers participated in the third edTPA Boot Camp. At this Boot Camp, they completed edTPA teaching portfolio's Task 2 commentary for instruction.

7. By midnight on October 9, 2016 pre-service teachers submitted their Task 2 commentaries for instruction.

8. On October 17-21, 2016 pre-service teachers participated in the fourth edTPA Boot Camp. At this Boot Camp, they completed edTPA teaching portfolio's Task 3 commentary for assessment.

9. By midnight on October 23, 2016 pre-service teachers submitted their students' work samples, evaluative criteria for assessing students' work samples, feedback to students, and Task 3 commentaries for assessment.

10. On November 1-3, 2016 pre-service teachers submitted their edTPA teaching portfolios for official scoring.

DATA ANALYSIS

Quantitative phase. The pre/post Self-Efficacy Survey data were used to answer the first research question: To what extent does developing the edTPA as a teaching portfolio affect the teaching self-efficacy of pre-service teachers in a teacher preparation program? Descriptive statistics were run related to each of the three constructs, planning, instruction, and assessment to determine the mean, range, and standard deviation for the pre/post Self-Efficacy Survey. Additionally, three repeated measures ANCOVAs were conducted to determine the change in pre-service teachers' self-efficacy after developing the edTPA teaching portfolio for the constructs of planning, instruction, and assessment. The purpose for conducting three repeated measures ANCOVAs was to "control for the effects of extraneous factors that might influence the dependent measure of interest" (Schneider, Avivi-Reich, & Mozuraitis, 2015, p. 1). Items related to the extraneous factors were included in the post Self-Efficacy Survey. Related to this study, the extraneous factor was identified as the influence of the cooperating teachers (i.e., mentorship).

Qualitative phase. The interview responses from the two cases were used to answer the second research question: How did pre-service teachers perceive their experiences after completing the edTPA teaching portfolio?

Prior to interviewing the pre-service teachers, the researcher developed pre-determined codes. The pre-determined codes were based on previously conducted studies' findings related to self-efficacy and the effects for developing teaching

portfolios. Miles and Huberman (1994) recommend beginning with pre-determined codes (see Appendix E) prior to analyzing the data from cases, which align with the research question(s) and theoretical framework, "to maintain a relational structure" (p. 63). The pre-determined codes changed and others emerged after the interviews concluded (Miles & Huberman, 1994). After interviewing the pre-service teachers, the researcher transcribed the audio recordings collected during the interviews. Then, the transcriptions were sent to pre-service teachers to review for accuracy (i.e., member checking). Once receiving confirmation regarding the accuracy of the transcripts from the pre-service teachers, the researcher developed initial, descriptive codes from the interview transcripts. Descriptive coding is used to summarize chunks of the data to support the researcher when developing categories and themes, allowing the data to inform the categories and themes (Miles, Huberman, & Saldana, 2014). For the second cycle of the analysis process, the researcher developed pattern codes. Pattern coding, "…is a way of grouping those summaries [initial, descriptive codes] into a small number of categories, themes, or constructs" (Miles, Huberman, & Saldana, 2014, p. 86).

After the pattern coding process, an expert, qualitative researcher was given the pre-determined pattern codes and analyzed the transcripts. The expert, qualitative researcher developed initial, descriptive codes after analyzing the data and then developed pattern codes. The researchers then compared both sets of pattern codes (i.e., pattern matching). Almutairi, Gardner, and McCarthy (2014) described the process of pattern matching as the identification and evaluation, "in the data against one or several hypothesized patterns that the analyst has developed through familiarity with the field"

(p. 240). Once a consensus for the pattern codes had been determined by both researchers, themes were then developed and agreed upon for each case.

In order to determine the similarities and differences between the cases, a cross-case analysis was conducted. “Cross-case analysis is a research method that facilitates the comparison of commonalities and differences in the events, activities, and processes that are the units of analysis in the case studies” (Bordean & Pop, 2012, p. 26). The analyzed data from Case 1 were compared to the analyzed data from Case 2 to explain the similarities and differences in pre-service teachers’ reports of self-efficacy after developing the edTPA teaching portfolio and receiving the official edTPA results (i.e., scores).

For years, the trustworthiness of qualitative research has been in question (Shenton, 2004). In an effort to eliminate concerns regarding trustworthiness, Guba (1981) established concepts the qualitative researcher must attend to; two of which are credibility and transferability. One way in which to ensure credibility is to triangulate the data (Denzin, 1978). The purpose of triangulation in qualitative research is to use data points, “…to develop a comprehensive understanding of the phenomena” (Carter Bryant-Lukosius, DiCenso, Blythe, & Neville, 2014, p. 545). The following data points were used for data triangulation: (1) pre-service teachers’ self-efficacy levels from the pre/post Self-Efficacy Survey, (2) self-assessment rubric scores, and (3) themes derived from the interview transcripts.

Transferability of findings refer to the capability of making inferences from the study to other situations and/or populations similar to the situations and/or populations situated within the study (Teddlie & Tashakkori, 2009). Teddlie and Tashakkori (2009)

describe four types of transferability: ecological, population, temporal, and operational. Ecological transferability is the capability to make inferences from the study to others with similar backgrounds or similar settings. Population transferability is the capability to make inferences from the study to similar individuals and/or groups. Temporal transferability is the capability to make inferences from the study to similar periods of time. Operational transferability is the capability to make inferences from the study to others with similar behaviors (Onwuegbuzie & Johnson, 2006). For this particular study, inferences were made for pre-service teachers with similar backgrounds (i.e., ecological transferability) and pre-service teachers completing edTPA from traditional teacher preparation programs within a tied-to-licensure state (i.e., population transferability).

SUMMARY

The purpose of this study was to investigate the development of the edTPA as a teaching portfolio on pre-service teachers' self-efficacy, specifically their perceptions of confidence related to the edTPA's constructs of planning, instruction, and assessment, within a tied-to-licensure state. The population and sample for this study consisted of pre-service teachers from a teacher preparation program, situated within a tied-to-licensure state, representing Art Education, Early Childhood Education, Health and Physical Education, Middle Grades English Education, Middle Grades Mathematics Education, Middle Grades Science Education, Middle Grades Social Studies Education, Music Education, Secondary English Education, Secondary Mathematics Education, Secondary Science Education, Secondary Social Studies Education, and Theatre Education.

The research design for this particular study was mixed methods using a sequential and explanatory approach. By conducting a sequential explanatory study, the

researcher collected data over a continuum through two phases, the quantitative and qualitative phases. The quantitative data collected the pre-service teachers' self-assessments, from the quantitative phase of the study, were used to develop the purposeful sample for the qualitative phase of the study (i.e., cases).

At the beginning of the student teaching semester, the pre-service teachers attended the edTPA Boot Camp. Prior to attending the Boot Camp, the edTPA Graduate Assistant e-mailed an explanation of the study, a link with the Informed Consent, and pre Self-Efficacy Survey. Pre-service teachers willing to participate indicated their willingness on the Informed Consent and completed the pre Self-Efficacy Survey. For the remaining portion of the student teaching semester, pre-service teachers attended edTPA Boot Camps, one per task. At the conclusion of each Boot Camp, pre-service teachers were asked to self-assess each task at the conclusion of each edTPA Boot Camp. Upon completion of the edTPA teaching portfolio, pre-service teachers attended the submission edTPA Boot Camp. Submission edTPA Boot Camp is designated for pre-service teachers to return to the teacher preparation program's campus to receive support when uploading their edTPA teaching portfolios to for external, official scoring. At the conclusion of the Submission edTPA Boot Camp, pre-service teachers that indicated their willingness to participate in the study were asked to complete the post Self-Efficacy Survey. Finally, the researcher contacted the pre-service teachers who indicated their willingness to participate in the individual interviews, and the researcher conducted the interviews.

The researcher analyzed the quantitative data from pre and post Self-Efficacy Surveys by conducting three repeated measures ANCOVAs for the constructs of planning, instruction, and assessment. The results from the repeated measures

ANCOVAs determined if there was a change in pre-service teachers' self-efficacy/confidence for each task (e.g., planning, instruction, and assessment). The descriptive statistics results from the self-assessment scores were used to develop the cases. The data derived from the cases' interviews were transcribed and analyzed to identify themes.

CHAPTER 4

RESULTS

INTRODUCTION

For more than 30 years, the concept of self-efficacy has been investigated (Sitzmann & Yeo, 2013; Vancouver & Day, 2005). Bandura (1982) identified self-efficacy as, "Perceived self-efficacy is concerned with judgments of how well one can execute courses of action required to deal with prospective situations" (p. 122). According to Bandura (1977), one's perceived self-efficacy is dependent upon four factors, "performance accomplishments, vicarious experiences, verbal persuasion, and physiological states" (p. 195). In order for any of the four factors to influence self-efficacy, an individual must reflect on the task and/or incoming information derived from the task (e.g., demonstrations, performances, feedback, and emotional reactions) to make decisions as to how the information can be used to make the decision to perform (or not perform) a future related task (Bandura, 1997; Pendergast et al., 2011).

Self-efficacy has been shown to be a contributing factor in terms of teachers' attitudes and beliefs about teaching and their students' learning (Guo et al., 2011; Holzberger, Philipp, & Kunter, 2013; Justice et al., 2008; Sezgin & Erdogan, 2015; Tschannen-Moran & Hoy, 2001). Tschannen-Moran and Hoy (2001) found teachers' self-efficacy affected their "enthusiasm, planning, organization, and effort" (p. 17). Teachers with higher levels of self-efficacy voiced feeling successful in their abilities to assess their students' learning and develop creative and effective tasks to meet their students' needs based on the assessments (Guo et al., 2011; Holzberger et al., 2013; Justice et al., 2008). Moreover, a positive classroom environment has been attributed to

teachers' self-efficacy (Tschannen-Moran & Barr, 2004). Furthermore, Klassen, Tze, Betts, and Gordon (2011) found teachers' self-efficacy to predict the amount of time and energy teachers invest in planning, teaching, and assessing.

PRESENTATION OF DESCRIPTIVE CHARACTERISTICS OF RESPONDENTS

Quantitative phase. Of the 42 participants, 31 (73.8%) were female, and 11 (26.2%) were male. The racial makeup of the group included 31 (73.8%) White, 8 (19.0%) Black, and 1 Hispanic (2.4%), and 2 other (4.8%) other. The marital status of the group was 27 (64.3%) single, 12 (28.6%) married, and 3 (7.1%) divorced. The type of school the participants completed their student teaching experiences in was 7 (16.7%) rural and 35 (83.3%) urban. Twenty-one of the 42 participants (50.0%) completed their student teaching in a Title 1 school. The degree programs of the participants were 41 (97.6%) undergraduate and 1 (2.4%) Post-Baccalaureate. Table 2 presents the frequencies and percentages for the participants' teacher education programs.

Table 2

Frequencies and Percentages for Participants' Teacher Education Program

Teacher Education Program	*n*	%
Early Childhood Education	14	33.3
Health and Physical Education	2	4.8
Middle Grades English	3	7.1
Middle Grades Math	1	2.4
Music Education	6	14.3

Secondary English	3	7.1
Secondary History	6	14.3
Secondary Mathematics	1	2.4
Secondary Science	1	2.4
Theatre Education	5	11.9
Total	42	100.0

Qualitative phase. Of the 2 participants, 2 (100%) were female. The racial makeup of the participants included 2 (100%) White. The marital status of the group was 2 (100%) married. The type of school the participants completed their student teaching experiences in was 1 (50.0%) rural and 1 (50.0%) urban, and 1 of the 2 participants (50.0%) completed their student teaching in a Title 1 school. The degree in which the participants were seeking was 2 (100%) undergraduate. Table 3 presents the frequencies and percentages for the participants' teacher education programs.

Table 3

Frequencies and Percentages for Participants' Teacher Education Program

Teacher Education Program	*n*	%
Secondary English	1	50.0
Secondary History	1	50.0
Total	2	100.0

DESCRIPTION, ANALYSIS, AND INTERPRETATION OF RESULTS

Quantitative phase. A repeated measures ANCOVA was conducted to determine if a significant change occurred from pre to post with the participants' levels of self-efficacy for planning while controlling for the cooperating teachers' feedback on pre-service teachers' lessons plans in the early weeks of the student teaching experience. The levels for the pre/post Self-Efficacy Survey was: not confident at all (i.e., level 1),

somewhat confident (i.e., level 2), confident (i.e., level 3), and very confident (i.e., level 4). The pre Self-Efficacy ratings for planning had a mean of 2.63 with a standard deviation of 0.51 and a range from 1.83 to 4.00. The post Self-Efficacy ratings for planning had a mean of 3.43 with a standard deviation of 0.53. The range was from 2.00 to 4.00. There was a statistically significant difference between the pre Self-Efficacy ratings and the post Self-Efficacy ratings for the construct of planning, $F(1,40) = 7.47$; $p = .01$. When the covariate of "my cooperating teacher provided feedback on my lesson plans in the early weeks of student teaching" was entered, there was no statistically significant difference, $F(1,40) = 0.01$; $p = .93$. Therefore, the increase in self-efficacy with planning can be contributed to the influence of the cooperating teacher. Of the 42 participants, 33 (78.6%) indicated the cooperating teacher did provide feedback for their planning in the early weeks of student teaching. The change from pretest to posttest was similar for both groups [$M_{pre} = 2.64$ to $M_{post} = 3.44$ for the group who did receive feedback; $M_{pre} = 2.61$ to $M_{post} = 3.39$ for the group who did not receive feedback]. Table 4 presents the descriptive statistics for the planning construct analysis. Table 5 displays a summary of the repeated measures ANCOVA for the planning construct.

Table 4

Descriptive Statistics for Planning Construct

	M	*S*	*min*	*max*
pretest planning	2.63	0.51	1.83	4.00
posttest planning	3.43	0.53	2.00	4.00

Table 5

Repeated Measures ANCOVA Summary for Planning Construct

	F	*p*
pre to post	7.47	0.01
pre to post with covariate	0.01	0.93

A repeated measures ANCOVA was conducted to determine if a significant change occurred from pre-test to posttest with the participants' levels of self-efficacy for instruction while controlling for the cooperating teachers' feedback on pre-service teachers' teaching in the early weeks of the student teaching experience. The pre Self-Efficacy ratings for instruction had a mean of 3.08 with a standard deviation of 0.50 and range of 2.00 to 4.00. The post Self-Efficacy ratings for instruction had a mean of 3.57 with a standard deviation of 0.47 and a range of 2.00 to 4.00 representing a statistically significant change from the pre Self-Efficacy ratings to the post Self-Efficacy ratings for the construct of instruction, $F(1,40) = 11.54$; $p = .002$. After entering the covariate of "my cooperating teacher provided feedback on my teaching in the early weeks of student teaching," there was not a significant change, $F(1,40) = 3.10$; $p = .09$. Therefore, the increase in self-efficacy with instruction can be contributed to the influence of the cooperating teacher. Of the 42 participants, 36 (85.7%) indicated the cooperating teacher did provide feedback on their teaching in the early weeks of student teaching. For the participants who indicated their cooperating teachers provided feedback on instruction, the mean score increased from 3.07 to 3.62. The group of participants who did not receive that feedback from the cooperating increased from 3.15 to 3.28. Table 6 presents the descriptive statistics for the instruction construct analysis. Table 7 displays a summary of the repeated measures ANCOVA for the instruction construct.

Table 6

Descriptive Statistics for Instruction Construct

	M	*S*	*min*	*max*
pretest instruction	3.08	0.50	2.00	4.00
posttest instruction	3.57	0.47	2.00	4.00

Table 7

Repeated Measures ANCOVA Summary for Instruction Construct

	F	*p*
pre to post	11.54	0.00
pre to post with covariate	3.10	0.09

A repeated measures ANCOVA was conducted to determine if a significant change occurred from pre-test to posttest with the participants' levels of self-efficacy for assessment while controlling for the cooperating teachers' help when assessing the students. The pre Self-Efficacy ratings for assessment had a mean of 2.81 with a standard deviation of 0.54 and a range from 1.50 to 4.00. The post Self-Efficacy ratings for assessment had a mean of 3.42 with a standard deviation of 0.59 and a range of 1.50 to 4.00 representing a statistically significant change from the pre Self-Efficacy ratings to the post Self-Efficacy ratings for the construct of assessment, $F(1,40) = 8.17$; $p = .01$. After entering the covariate of "my cooperating teacher helped me assess the students," there was not a significant change, $F(1,40) = 0.75$; $p = .39$. Therefore, the increase in self-efficacy with assessment can be contributed to the influence of the cooperating teacher. Of the 42 participants, 27 (64.3%) indicated the cooperating teacher helped the pre-service teachers assess the students. This group of participants had a mean score of 2.80 on the pretest and 3.47 on the posttest. For the participants who did not receive

feedback on assessment from the cooperating teacher, the mean score was 2.83 on the pretest and 3.32 on the posttest. Table 8 presents the descriptive statistics for the assessment construct analysis. Table 9 displays a summary of the repeated measures ANCOVA for the assessment construct.

Table 8

Descriptive Statistics for Assessment Construct

	M	*S*	*min*	*max*
pretest assessment	2.81	0.54	1.50	4.00
posttest assessment	3.42	0.59	1.50	4.00

Table 9

Repeated Measures ANCOVA Summary for Assessment Construct

	F	*p*
pre to post	8.17	0.01
pre to post with covariate	0.75	0.39

Qualitative phase. A case study analysis was conducted to help make sense of the quantitative and qualitative data to determine similarities and differences between the two cases that would help answer the research question: How did pre-service teachers perceive their experiences after completing the edTPA teaching portfolio? In this section, a description of each case will be provided, followed by a discussion of emerging themes and sub-themes discovered through analysis of interview transcripts, pre and post Self-Efficacy Surveys, and covariate items. Additionally, the pseudonyms of Beverly and Stephanie will be used to protect the pre-service teachers' identities.

In regard to the self-assessment scores, each case represented one pre-service teacher from the highest quartile – Beverly - and one pre-service teacher from the lowest

quartile – Stephanie. Although the two cases' self-assessment scores and self-efficacy ratings varied greatly, the pre-serviced teachers shared similar demographics and backgrounds. For example, both had similar family structures, teacher preparation experiences in terms of scope and sequence, and number of required field placement hours prior to student teaching. Additionally, neither of them had previous experiences working in their respective high schools or with their respective cooperating teachers prior to their student teaching placements. In regard to their demographic differences, each pre-service teacher completed their student teaching in different types of schools (e.g., urban, city, rural). Figure 3 displays the themes and sub-themes flowchart for the qualitative data.

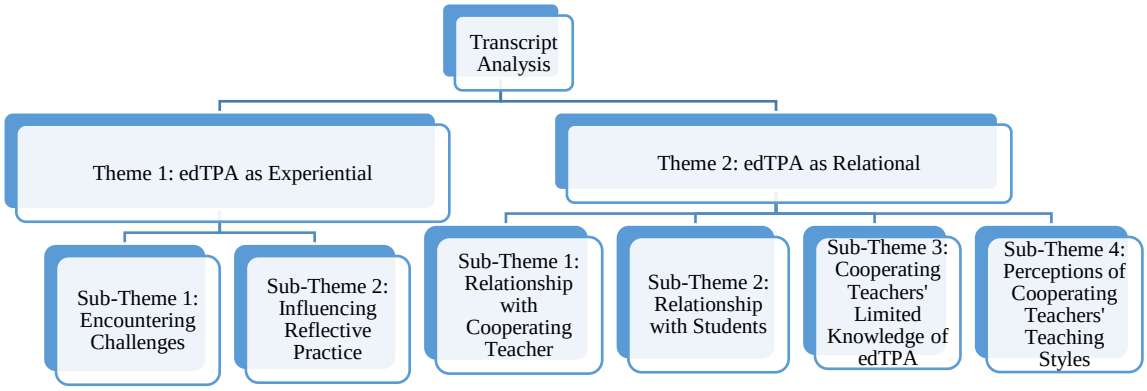
Transcript Analysis
Theme 1: edTPA as Experiential
Theme 2: edTPA as Relational
Sub-Theme 1: Encountering Challenges
Sub-Theme 2: Influencing Reflective Practice
Sub-Theme 1: Relationship with Cooperating Teacher
Sub-Theme 2: Relationship with Students
Sub-Theme 3: Cooperating Teachers' Limited Knowledge of edTPA
Sub-Theme 4: Perceptions of Cooperating Teachers' Teaching Styles

Figure 3. Themes and sub-themes flowchart for qualitative data.

edTPA as experiential. edTPA as experiential refers to pre-service teachers' perceived experiences when developing the edTPA teaching portfolio. Two commonalities were found regarding the ways in which Beverly and Stephanie described their experiences. Hence, two sub-themes emerged (See Figure 3).

Encountering challenges. At the beginning of the interview, Beverly was asked to describe her experiences when developing the edTPA teaching portfolio. She discussed not understanding the language within the teaching portfolio (e.g., academic language) and feeling initially overwhelmed by the process. She stated,

> So you know, we [pre-service teachers] had to go back. We read on our own. We tried to do what we could we of course, e-mailed the heck out of poor Gwen [edTPA graduate assistant]. I just think that the process may be needed to be refined a little bit.

Furthermore, Beverly thought it was important for her program to offer an edTPA support course for pre-service teachers to take the semester prior to student teaching and said, "I really wanted to set us [pre-service teachers] up to be a successful program." In reflection upon the process of developing the edTPA teaching portfolio and in response to the challenges, Beverly concluded with, "As I got through, I realized it was not a very difficult process."

When Stephanie described her experiences with developing the edTPA teaching portfolio, she too began with the challenges. She stated, "That was the worst thing I've ever done in my entire life." However, the more Stephanie discussed her challenges with developing the portfolio, she conceded, "I mean in some ways, yes it made me think a little further," but went on further to add, "…but, it stressed me out more than was helpful." When Stephanie was asked to provide specific examples that caused stress, she said, "On every single question there was, 'What research and theory backs up,' as secondary ed. majors, we don't have theory classes. Having to put it [planning,

instruction, and assessment decisions and practices] all back to a research or a theory was extremely stressful."

Influencing reflective practice. After Beverly shared her challenges, she described the process of developing the edTPA teaching portfolio as influencing her reflective practices. She said, "It [edTPA] really is good for reflecting on your teaching," in regard to, "…why are you doing this? How are we serving our students?" Beverly further described how her reflections supported her in developing instructional strategies and learning tasks that were appropriate for her students. She said, "It was that thought process, 'What am I doing? Why am I doing this?' and you know, because you're trying to get where these kids are."

Stephanie alluded to the process as being helpful in terms of reflection by stating, "The overall arching [purpose] of what it was asking us to do is helpful because it really makes you think about 'Well, why am I teaching this the way I'm teaching it?' So in that aspect it is helpful, but it's almost to the extreme."

In regard to the experiences of influencing pre-service teachers' reflective practices, both pre-service teachers' self-efficacy ratings from pre to post increased (see Appendix F). The two constructs that showed an increase were (14) evaluating my instruction in order to describe missed opportunities and (15) using the reflection of my instruction to develop more effective learning tasks for my students.

edTPA as relational. The second theme, edTPA as relational, refers to the pre-service teachers' perceived relationships with their cooperating teachers and students as they developed their edTPA teaching portfolios. Although Beverly and Stephanie shared similar teacher preparation experiences prior to entering student teaching, the quantitative

and qualitative data regarding their relational experiences differed from one another. Therefore, two sub-themes emerged, relationship with cooperating teacher and relationship with students (See Figure 3). Although there were differences, the pre-service teachers did share similar perceptions regarding their cooperating teachers. Thus, two additional sub-themes emerged, cooperating teachers limited knowledge of edTPA and perceptions of cooperating teachers' teaching styles (see Figure 3).

Relationship with cooperating teacher. When discussing the relationships developed within the context of Beverly's student teaching placement, she differed from Stephanie's responses as she described her relationship with her cooperating teacher as positive and supportive. She stated, "Love her. I mean we became friends. I think we'll be lifelong friends. She's great, real quirky." Beverly went on further to explain that she immediately felt included as a colleague by her cooperating teacher, "She [cooperating teacher] really was wonderful about basically giving me those students from the beginning." In terms of feeling supported by the cooperating teacher for planning, instruction, and assessment, Beverly responded positively to the items identified as the covariates.

Based on Stephanie's interview responses, she indicated a relationship that was not positive and lacked support. For example, Stephanie's experience from the onset of student teaching seemed to set the tone for her student teaching experience as she said, "She [cooperating teacher] was volun-told that she was gonna have a student teacher. So, she was not even given an option, and I think in some ways in a different time she would've made a good cooperating teacher."

When discussing the support offered by the cooperating teacher, Stephanie said, "My cooperating teacher wasn't helpful in any way shape or form when it came to planning." Additionally, Stephanie described her efforts to reach out to her cooperating teacher for support as being frustrating. She said, "You know I had to ask for help and she'd be like 'Whatever you want to do.' That's not helpful because whatever I want to do is wide open." Furthermore, Stephanie responded negatively to the items identified as the covariates related to support from the cooperating teacher for planning, instruction, and assessment.

Relationship with students. The other difference that emerged with both cases was the description of their relationships with students. After reviewing Beverly's transcript, she consistently referenced her students- the developed relationships, the planning that occurred while considering her students' interests, community assets and needs, the creative teaching strategies and learning tasks to engage her students, and the successes after implementing the creative teaching strategies and learning tasks. Furthermore, Beverly's pre to post Self-Efficacy results indicated an increase (i.e., from somewhat confident to very confident) for the constructs related to planning for students (i.e., See Appendix F).

Beverly administered a learning survey to her students at the beginning of her student teaching experience. The purpose of the learning survey, as indicated by Beverly, was, "You got to understand how these kids learn." She added, "Because a lot of my kids, their reading levels, all of them, are much lower level than you would have at some of other school." Beverly mentioned that her students would often complain that the curriculum was too fast-paced. Based on this understanding, Beverly sought to create

interactive and relevant learning tasks in her edTPA learning segment that were based on her students' interests and developmental levels. Her purpose for doing so was stated by Beverly as, "So they can get it [content]."

Once Beverly began developing Task 1 (i.e., planning) for edTPA, she described the development of Task 1 to further support her in recognizing there had to be an intentional approach in getting to know her students' prior knowledge, interests, and community assets. By getting to know her students, Beverly believed the students would become and stay engaged in the learning tasks she had planned. She stated, "It [edTPA] really helped me serve all my kids and make sure that I was really getting them involved." For example, Beverly discovered her students shared a common love of rap music and created experiences throughout her learning segment for students to rap the content.

Another example of a creative learning task Beverly described from her edTPA learning segment was asking her students to create their own Declaration of Independence. Beverly chose this learning task because she heard students engaged in conversations throughout the school's hallways and her classroom related to feeling oppressed. Some of the conversations were described by Beverly as, "They don't feel like they're allowed to think for themselves at all, no cell phones, can't dress how they want, all these different things."

As the students began to declare their independence and make connections to the historical underpinnings associated with this learning task, Beverly noticed a change in the students' understandings of the purpose for declaring one's independence. She stated, "They got it because they felt like they were being oppressed, just like the original

colonists were. It helped them get the concept so much better, and even the lower level learners were able to get it that way, just like the high-level learners." Beverly also noticed a change in her students with special needs in terms of their levels of confidence when they engaged in the learning segment. She noted, "My students in special education actually a lot of them took the lead on it [learning task] and you know, to see their confidence is a big thing."

Beverly became increasingly enthusiastic when she described the effects for providing learning tasks from her edTPA learning segment that engaged her students. When Beverly analyzed her students' learning from the learning tasks, she noticed a significant difference in her students' assessment data in comparison to their assessment data from previous learning tasks given by the cooperating teacher. She said, "I would say that scores were up 80% from what we were looking at because I went back and looked at all their scores."

Stephanie rarely made references to her students. Most of the interview responses were in reference to the requirements of edTPA, the cooperating teacher and clinical faculty member, and her strengths and areas for improvement. Furthermore, Stephanie's pre to post Self-Efficacy results indicated a decrease in her confidence to provide a safe learning environment that promotes mutual respect and a positive rapport with all learners (i.e., from very confident to confident) (See Appendix F).

There was one instance when Stephanie referenced knowledge of her students' learning as she began to develop the edTPA teaching portfolio. Stephanie wanted to plan a writing learning segment because she knew her students needed support with their writing. She stated, "I knew, okay I want them to do some writing, because by that point I

had already graded some of their writing." However, Stephanie's cooperating teacher had fallen behind in terms of the curriculum pacing plan. Stephanie explained, "So I ended up teaching what she should've."

Cooperating teachers' limited knowledge of edTPA. Although there were differences in terms of the relationships developed with the cooperating teachers and students, there were two similar concepts that emerged from the conversations with the pre-service teachers. First, both pre-service teachers described their cooperating teachers as having no or limited knowledge of edTPA and the expectations for developing the teaching portfolio. Beverly stated, "She's not real familiar with the edTPA process." Stephanie said, "She had really no idea what edTPA was. She didn't really know what was expected of me." Therefore, neither Beverly nor Stephanie felt as if they could go to their cooperating teachers for support (e.g., ask questions) as they developed the edTPA teaching portfolio.

Perceptions of cooperating teachers' teaching styles. Beverly and Stephanie discussed the intentional efforts to teach differently than their cooperating teachers. Both pre-service teachers identified their cooperating teachers' styles of teaching as teacher-directed and identified their own teaching styles as interactive, engaging, and student-centered. Beverly spoke of purposefully designing lessons that differed from her cooperating teacher because she discovered her students were burnt out from "…PowerPoint, lecture, lecture, PowerPoint." When Stephanie discussed her cooperating teacher's style of teaching, she said, "You know, she hated group work. Her idea of teaching was, 'Okay, we're gonna do a popcorn reading. You're going to sit and answer

these questions.'" Stephanie then discussed her personal approach to teaching, which also differed from her cooperating teacher's as being,

> My idea of teaching is we're going to have groups, and we're going to have discussions, and move around. You always knew when I was teaching because the desks would be moved into groups, and when she was teaching they'd go back to their, they weren't quiet rows.

CHAPTER 5

DISCUSSION

To study the effects of developing the edTPA as a teaching portfolio on pre-service teachers' self-efficacy, the researcher employed a mixed methods sequential explanatory design. A sequential explanatory design is one that allows the researcher to collect quantitative data over a period of time, along a continuum, with a follow-up collection of qualitative data (Ivankova et al., 2006). The data derived from the quantitative phase of the study were used to answer the research question: To what extent does developing the edTPA as a teaching portfolio affect the teaching self-efficacy of pre-service teachers in a teacher preparation program? The data derived from the qualitative phase of the study were used to answer the research question: How did pre-service teachers perceive their experiences after completing the edTPA teaching portfolio?

Quantitative phase. The researcher investigated if pre-service teachers' self-efficacy for planning, instruction, and assessment changed over time after developing the edTPA as a teaching portfolio with a pre/post Self-Efficacy Survey. Within the post Self-Efficacy Survey, covariates were included regarding the influence of the cooperating teacher in supporting his/her pre-service teacher with planning, instruction, and assessment. Additionally, the researcher asked pre-service teachers to self-assess their performances for planning (Task 1), instruction (Task 2), assessment (Task 3), and reflection of teaching (embedded in all three tasks) by using the edTPA rubrics, located in the content-specific edTPA Handbooks developed by Stanford Center for Learning, Assessment & Equity (edTPA Handbooks/rubrics, can be found at www.edtpa.aacte.org).

The pre-service teachers' self-assessments were used to construct the cases for the qualitative phase of the study.

Of the potential 52 pre-service teachers who student taught in fall 2016 that responded to both the pre and post Self-Efficacy surveys, 42 cases were matched with their pre to post Self-Efficacy survey responses. The 42 pre-service teachers participating in the study represented the following programs: Early Childhood Education, Health and Physical Education, Middle Grades English, Middle Grades Math, Music Education, Secondary English, Secondary History, Secondary Mathematics, Secondary Science, and Theatre Education. Of the 42 cases, the pre to post Self-Efficacy survey responses indicated a statistically significant change for pre-service teachers' self-efficacy for the constructs of planning, instruction, and assessment. However, after entering the covariates related to the support from the cooperating teacher for planning, instruction, and assessment, there was not a significant change in pre-service teachers' self-efficacy.

Qualitative phase. A case study analysis was conducted to investigate pre-service teachers' perceptions of developing edTPA as a teaching portfolio. To determine the cases for the case study analysis, the researcher ordered the mean self-assessment rubric scores. Then, the data were divided into four quartiles. Pre-service teachers, Beverly (representing the high group, Q4) and Stephanie (representing the low group, Q1), were asked to participate in individual, semi-structured interviews after receiving their official edTPA scores. Although the pre-service teachers' (i.e., two cases) self-assessment results and self-efficacy ratings differed, they did share similar demographics (e.g., completed secondary programs, lab placement requirements prior to student teaching, student taught in high-schools, non-traditional students, and had similar family structures).

After triangulating the data (i.e., pre to post Self-Efficacy Survey results, results from the covariates, and transcripts), two themes were identified: (1) edTPA as Experiential and (2) edTPA as Relational. edTPA as experiential refers to pre-service teachers' perceived experiences when developing the edTPA as a teaching portfolio, and edTPA as relational refers to the pre-service teachers' perceived relationships with their cooperating teachers and students as they developed their edTPA teaching portfolios.

Within the theme, edTPA as experiential, two sub-themes emerged (i.e., encountering challenges and influencing reflective practice). At the start of both interviews, pre-service teachers were asked to describe their overall experiences when developing the edTPA teaching portfolio. Interestingly, both pre-service teachers first described the challenges they faced. Beverly described her challenge as not understanding the language within the edTPA handbook (e.g., academic language demands). Stephanie described her challenge as not feeling confident when asked to support her planning, instruction, and assessment decisions and practices with research and/or theory.

Although both Beverly and Stephanie first described the challenges they encountered, they both described the process of developing the edTPA as a teaching portfolio helpful in terms of reflecting on their teaching decisions and practices. Additionally, Beverly and Stephanie's pre to post Self-Efficacy Survey responses confirmed their descriptions for the process of developing the edTPA teaching portfolio as influencing their reflective practices (see Appendix F).

Within the theme, edTPA as relational, two sub-themes were constructed (i.e., relationships with cooperating teacher and relationships with students). When the pre-

service teachers discussed their cooperating teachers, two additional sub-themes emerged (i.e., cooperating teachers having limited knowledge of edTPA and pre-service teachers' perceptions of their cooperating teachers' teaching styles). Beverly and Stephanie's descriptions differed in regard to the relationships with their cooperating teachers and students. Beverly described the relationship with her cooperating teacher as welcoming, respectful, and supportive, and Stephanie described the relationship with her cooperating teacher as unsupportive. Furthermore, Beverly responded positively to each of the covariates related to receiving support from the cooperating teacher for planning, instruction, and assessment. In contrast, Stephanie responded negatively to each of the covariates, related to the support from the cooperating teacher for planning, instruction, and assessment.

Similar to the relationships with the cooperating teachers, Beverly and Stephanie's descriptions differed in terms of their relationships with students. During the interview, Beverly consistently discussed her students during the interview (i.e., the developed relationships, the planning that occurred while considering her students' interests, community assets and needs, the creative teaching strategies and learning tasks to engage her students, and the successes after implementing the creative teaching strategies and learning tasks). In support of this finding, Beverly's pre to post Self-Efficacy results indicated an increase for the constructs related to planning for students (see Appendix F). In contrast to Beverly's descriptions of her students, Stephanie seldom mentioned her students. Related to this finding, Stephanie's pre to post Self-Efficacy results indicated a decrease from pre to post in her confidence to provide a safe learning

environment that promotes mutual respect and a positive rapport with all learners (see Appendix F).

When the pre-service teachers described their cooperating teachers, two sub-themes emerged. Both Beverly and Stephanie noted their cooperating teachers as having very little understanding edTPA. Hence, the pre-service teachers described feeling as if they could not seek support from the cooperating teachers when preparing their edTPA teaching portfolio. Also, both pre-service teachers described their cooperating teachers' teaching styles as being traditional, which they described as being different from their own styles of teaching. Furthermore, the pre-service teachers described their deliberate efforts to teach with a creative and interactive approach.

GENERAL FINDINGS RELATED TO SELF-EFFICACY

Quantitative phase. The data from the pre to post Self-Efficacy Survey were used to answer the first research question: To what extent does developing the edTPA as a teaching portfolio affect the teaching self-efficacy of pre-service teachers in a teacher preparation program? The data indicated a statistically significant increase in pre-service teachers' self-efficacy for planning, instruction, and assessment until the covariates related to the influences of the cooperating teacher were entered. Researchers have studied the effects of developing a teaching portfolio on pre-service teachers' self-efficacy (Forawi et al., 2012; Gallant & Mayer, 2012; Hartnett-Edwards, 2013; Okhremtchouk et al., 2013); however, researchers have not investigated the influences of the cooperating teachers as pre-service teachers develop teaching portfolios.

Related to this study, the results indicate that the cooperating teachers' influence will affect pre-service teachers' self-efficacy when developing the edTPA teaching

portfolio. This finding confirms previous studies' findings in terms of the effects of cooperating teachers' influence on pre- service teachers' self-efficacy. Jenkins, Pateman, and Black (2002) studied the effects of school-based experiences on pre-service teachers' self-efficacy. These school-based experiences included providing pre-service teachers opportunities to practice planning, teaching, and assessing and to be given feedback by "an experienced mentor and supervisor" (p. 41). Jenkins et al. (2002) found the school-based experiences to positively affect pre-service teachers' self-efficacy. In a similar study, Martin (2002) found pre-service teachers to cause an additional stressor for cooperating teachers unless the cooperating teachers were provided with professional development opportunities (e.g., mentor workshop) prior to hosting a pre-service teacher. Russell and Russell (2011) found when cooperating teachers attended mentor workshops, the cooperating teachers described feeling more confident in and having a clearer understanding of their roles as mentors. Thus, cooperating teachers' confidence and clearer understanding of their roles positively affected pre-service teachers' self-efficacy (Russell & Russell, 2011).

Fairbanks, Freedman, and Kahn (2000) described the mentorship of a cooperating teacher for a pre-service teacher as being potentially complicated if both parties do not spend time negotiating and developing learning tasks for students that meet students' learning needs and allow connections to be made to personal, cultural, and community assets. Velzen, Volman, Brekelmans, and White (2012) discovered when pre-service teachers were given opportunities to reflect on their teaching decisions and practices with their cooperating teachers, both the pre-service teachers and cooperating teachers strengthened their reflective teaching practices. Therefore, the influence of the

cooperating teacher must be considered as a critical variable in terms of pre-service teachers' self-efficacy, particularly related to planning, instruction, assessment, and reflection of one's teaching practice.

Qualitative phase. The data from the interview transcripts were used to answer the second research question: How did pre-service teachers perceive their experiences after completing the edTPA teaching portfolio? After further analysis of pre-service teachers' perceived experiences after completing the edTPA teaching portfolio (i.e., Beverly and Stephanie's interview transcripts, pre to post Self-Efficacy Survey responses, and covariate responses), edTPA as experiential emerged as a theme. Within this theme, two major findings (i.e., sub-themes) were discovered: encountering challenges and influencing reflective practice.

Encountering challenges. When asked to describe their experiences when developing the edTPA teaching portfolio, both pre-service teachers began by describing the challenges in which they faced. They described feeling overwhelmed and confused because of the language and expectations of edTPA. Both Beverly and Stephanie described the desire to have had coursework prior to student teaching that would have better supported their development of edTPA. Similar to the finding of encountering challenges, Oakley et al. (2014) and Imhof and Picard (2009) found increased levels of frustration and confusion for pre-service teachers that developed teaching portfolios. The increased levels of frustration and confusion were a result of pre-service teachers not having a clear understanding of the purpose and expectations of the teaching portfolios. Additionally, the researchers in these studies found the instructors' lack of understanding for the purpose and development of the teaching portfolios to have an effect on pre-

service teachers' confidence during the construction of the teaching portfolios. Imhof and Picard (2009) noted, "We found a large variance in terms of satisfaction with the portfolio across learning groups and that much of the perceived usefulness depended on the credibility of the instruction" (p. 153).

Influencing reflective practice. Based on Bandura's (1997) theoretical framework for self-efficacy, the performance itself (e.g., development of a portfolio) does not influence one's self-efficacy; however, it is the reflection of the performance that affects one's self-efficacy. Furthermore, Meristo et al. (2013) found self-assessment and self-reflection to be the key contributors in influencing pre-service teachers' self-efficacy. Similar to these findings, both Beverly and Stephanie's described the process of developing edTPA as a teaching portfolio to positively affect their abilities to reflect on their teaching. Additionally, Beverly and Stephanie's pre to post Self-Efficacy Survey responses (i.e., evaluating my instruction in order to describe missed opportunities and using the reflection of my instruction to develop more effective learning tasks for my students) showed an increase in the participants' levels of self-efficacy/confidence.

Other studies have shown the process for developing a teaching portfolio to positively affect pre-service teachers' reflective practices. Hartnett-Edwards (2013) found pre-service teachers to indicate the most beneficial aspect for developing a teaching portfolio was viewing their teaching videos to analyze and reflect on their teaching. One elementary education pre-service teacher said, "I thought the video observation was very useful, not only as an assignment but as a way to self-reflect about our own work and improve it" (Hartnett-Edwards, 2013, p. 159). A secondary education pre-service teacher described the analysis of teaching as, "It forced me to evaluate and critically think about

almost every moment in my lesson. I felt it was our version of what football coaches do when they watch film" (Hartnett-Edwards, 2013, p. 159).

Similarly, Gallant and Mayer (2012) found the development of a teaching portfolio to increase pre-service teachers' abilities to reflect on their teaching. The increase in pre-service teachers' abilities to reflect stimulated an intentional approach to evaluating students' learning. Okhremtchouk et al. (2013) found when pre-service teachers developed the teaching portfolio, PACT, they become more aware of effective teaching strategies (i.e., what works and what does not) after reflecting on their teaching decisions and practices. Finally, Forawi et al. (2012) found pre-service teachers to explain the development of a teaching portfolio to influence their self-evaluations. Hence, the development of a teaching portfolio does affect pre-service teachers' self-efficacy when pre-service teachers are asked to reflect (i.e., explain, describe, justify, and analyze) on their teaching decisions and practices when developing a teaching portfolio.

edTPA as relational. After further analysis of pre-service teachers' perceived experiences after completing the edTPA teaching portfolio (i.e., Beverly and Stephanie's interview transcripts, pre to post Self-Efficacy Survey responses, and covariate responses), edTPA as relational emerged as a theme. Within this theme, the following sub-themes were found: relationship with cooperating teacher, relationship with students, cooperating teachers' limited knowledge of edTPA, and perceptions of cooperating teachers' teaching styles.

Relationship with cooperating teacher. As previously discussed in the conclusions for the quantitative phase of the study, preceding studies have shown that cooperating teachers are influential in affecting pre- service teachers' self-efficacy (Fairbanks et al.,

2000; Jenkins et al., 2002; Martin, 2002; Russell & Russell, 2011; Velzen et al., 2012). The findings from this study do not differ in terms of the effects of the cooperating teacher on pre-service teachers' self-efficacy. Beverly, who had higher levels of self-efficacy, described the relationship with her cooperating teacher as friendly and supportive. Furthermore, she responded favorably to each of the covariates regarding the support from the cooperating teacher in terms of planning, instruction, and assessment. Stephanie, who had lower levels of self-efficacy, described the relationship with her cooperating teacher as unsupportive. Furthermore, she responded negatively to each of the covariates regarding the support from the cooperating teacher in terms of planning, instruction, and assessment. Therefore, the influences of the cooperating teacher have an effect on pre-service teachers' self-efficacy.

Relationship with students. In a previous study, Gallant and Mayer (2012) found the development of a teaching portfolio to increase pre-service teachers' capabilities to have a more deliberate approach when assessing their students' learning. Similar to this finding, Beverly consistently referenced her students' prior learning experiences and their personal and community assets throughout the interview, which as she described were a result of an intentional collection of data from informal and formal assessments prior to and during the development of her edTPA teaching portfolio. Beverly used the data to develop relevant and creative learning tasks that supported her students' learning and allowed for connections to be made to their personal and community assets. Similar to this finding, Okhremtchouk et al. (2013) found pre-service teachers to feel more confident after developing a teaching portfolio in terms of developing authentic

assessments and using data from the assessments to make informed instructional decisions (i.e., providing differentiated instruction).

Forawi et al. (2012) discovered pre-service teachers to feel more equipped to positively affect their students' learning after developing a teaching portfolio. Similar to this finding, Beverly described her students' engagement when completing learning tasks from her edTPA learning segment. In addition, Beverly noted higher levels of performances/grades, as compared to previous grades in class, on the assessments she collected during her edTPA learning segment. Additional data from this study support the findings related to Beverly's self-efficacy in terms of developing relationships with students. Beverly's pre to post Self-Efficacy Survey results indicated an increase for each of the all of the constructs related to planning for her students.

Throughout the interview, Stephanie, who had lower levels of self-efficacy, rarely mentioned assessing her students to gain an understanding of their prior learning and did not discuss their personal, cultural, or community assets. Additionally, Stephanie's pre to post Self-Efficacy Survey results indicated a decrease in her confidence to develop a mutually respectful learning environment and a positive rapport with her students. Thus, in an effort to develop relationships with students, an intentional effort to assess students' knowledge of content and assets does affect pre-service teachers' self-efficacy to plan, instruct, and assess their students.

Cooperating teachers' limited knowledge of edTPA. Both Beverly and Stephanie described their cooperating teachers as not having any or limited knowledge of edTPA and felt they could not ask their cooperating teachers questions as they developed their edTPA teaching portfolios. Similar to this finding, researchers have found pre-service

teachers to express frustration and confusion when their instructors had limited knowledge of the expectations of and criteria used to assess teaching portfolios. Oakley et al. (2014) found pre-service teachers' primary source of frustration when developing a teaching portfolio to be the inconsistent feedback (i.e., support) provided by their instructors. This inconsistent feedback was a result of instructors having a limited understanding of the teaching portfolio. Moreover, Imhof and Picard (2009) found pre-service teachers' frustrations and stress when developing a teaching portfolio were a direct result of their instructors' lack of understanding of the teaching portfolio. Imhof and Picard (2009) stated, "… much of the perceived usefulness depended on the credibility of the instruction" (p. 153).

Perceptions of cooperating teachers' teaching styles. Beverly and Stephanie described their cooperating teachers' teaching styles as teacher-directed, and both pre-service teachers mentioned their efforts to teach differently than their cooperating teachers. When one unpacks edTPA as a teaching portfolio (i.e., the commentary prompts and rubrics), a traditional style of teaching (e.g., teacher-directed) will receive scores below a level 3 (level 3 indicates ready to teach). Hence, the consistent thread throughout the three tasks of edTPA is an intentional focus to move beyond a teacher-directed style of planning, teaching, and assessing to a student-centered style of planning, teaching, and assessing (Stanford Center for Assessment, Learning & Equity, 2013).

In response to the effects of cooperating teachers on pre-service teachers' edTPA performances, Behney's (2016) findings indicated that sixty-two percent of the foreign language pre-service teachers interviewed (n = 8) described a deliberate approach to

teach differently than their cooperating teachers, particularly when developing their edTPA teaching portfolios. As one pre-service teacher stated,

> I realized, too, with the edTPA, with the rubrics, that it specifically says if the students aren't interacting in the language and if it is grammar-based, then that is on the low end of the rubric and I wouldn't have passed that section if I did it like that. (Behney, 2016, p. 275)

Behney (2016) also found two cooperating teachers to indicate a difference in their styles of teaching as compared to the expectations for planning, instructing, and assessing found in the edTPA handbook. For example, one cooperating teacher said, "This is probably negative toward me but when I went to school we did not learn the way that is being taught now" (Behney, 2016, p. 277). Based on findings related to the effects of cooperating teachers on pre-service teachers' self-efficacy (Fairbanks et al., 2000; Jenkins et al., 2002; Martin, 2002; Russell & Russell, 2011; Velzen et al., 2012) and the findings related to pre-service teachers' performances on edTPA (Behney, 2016), one can conclude per-service teachers' confidence is affected when developing edTPA as a teaching portfolio.

IMPLICATIONS

The results from this study will benefit teacher educators, stakeholders (e.g., school district personnel), and pre-service teachers. Teacher educators must collect evidence from pre-service teachers indicating their readiness to teach prior to being recommended for teacher licensure (e.g., artifacts and reflections within the edTPA teaching portfolio) (Darling-Hammond, 2010). Moreover, there is a need to collect evidence of pre-service teachers' perceptions of teaching self-efficacy (i.e., planning,

instruction, assessment, and reflection of teaching self-efficacy). By investigating pre-service teachers' self-efficacy after completing the edTPA as a teaching portfolio, teacher educators, stakeholders, and pre-service teachers can recognize the process as having an effect on pre-service teachers' self-efficacy for future teaching performances. As Bandura (1977) stated, "It might be argued that self-efficacy proved to be an accurate predictor of performance in the enactive mode of treatment because subjects were simply judging their future performance from their past behavior" (p. 211).

The pre-service teachers participating in this study acknowledged an increase in terms of their self-efficacy for the constructs of planning, instruction, and assessment. However, the effects of the cooperating teacher was recognized as an influential factor on pre-service teachers' self-efficacy for each of the constructs. Therefore, teacher preparation programs/teacher educators must become more deliberate and thoughtful in regard to the placement of student teachers for their student teaching experiences. Furthermore, cooperating teachers should be provided with professional development opportunities (e.g., mentor workshops) and have opportunities for three-way conversations with the university, cooperating teacher, and student teacher in an effort to open the lines of communication to develop a common understanding of the expectations. Lastly, teacher educators should allow cooperating teachers to participate in edTPA workshops prior to hosting pre-service teachers. By doing so, cooperating teachers will develop an understanding of the purpose and expectations of the teaching portfolio and can act as a support for their pre-service teachers as they complete their edTPA teaching portfolios, which could affect pre-service teachers' self-efficacy.

The development of a teaching portfolio has been shown to increase pre-service teachers' self-efficacy/confidence, as in the case of Beverly and past studies. Therefore, teacher educators should acknowledge edTPA as a teaching portfolio as opposed to merely an assessment to be used for teacher certification. Furthermore, teacher educators should provide experiences (e.g., learning tasks and activities), prior to and during student teaching, for their pre-service teachers to understand how edTPA is a teaching portfolio that can be used as a tool for professional development in terms of planning, teaching, assessing, and reflecting on one's practice.

RESEARCH LIMITATIONS

Quantitative phase**.** One of the limitations of this study was solely collecting evidence from pre-service teachers completing their student teaching experiences in one semester as opposed to collecting evidence over multiple semesters. The participants for this study completed their teacher preparation programs (i.e., student teaching) during the fall 2016 semester. As student teachers are individuals, each with multiple variables influencing their teaching decisions and practices, it could be argued limited evidence was collected to indicate the effects for developing the edTPA as a teaching portfolio based on responses from one group (i.e., one semester) of student teachers.

Student teachers participating in the study represented one university. Teacher preparation programs have differences in regard to context (e.g., how faculty prepare pre-service teachers, scope and sequence of teacher preparation programs, student teaching placements). The results from this study will allow inferences to be made of pre-service teachers' self-efficacy with similar backgrounds (i.e., ecological transferability) and for pre-service teachers completing edTPA from traditional teacher preparation programs

within a tied-to-licensure state (i.e., population transferability) for the constructs of planning, instruction, and assessment. However, the findings are limited in terms of gaining a broader understanding of pre-service teachers' perceptions of self-efficacy when developing edTPA as a teaching portfolio from various backgrounds, when completing non-traditional teacher preparation routes when seeking teacher licensure, and from states that have not adopted edTPA as a pre-requisite when seeking teacher licensure.

Two teacher preparation programs were not included in this study. Both the Special Education and World Language edTPA Handbooks have differences in terms of the constructs and expectations for developing the edTPA teaching portfolio, and the pre/post Self-Efficacy Survey was developed based on the similar constructs and expectations found within the edTPA Handbooks for Elementary Education, Physical Education, Middle Childhood English, Middle Childhood Mathematics, Performing Arts, Secondary English, Secondary History, Secondary Mathematics, and Secondary Science. The pre/post Self-Efficacy Survey may have caused conflict or confusion for pre-service teachers completing Special Education and Foreign Language teacher preparation programs. Therefore, including the two programs' pre-service teachers could have affected the results of this study.

One more limitation that influenced both the quantitative and qualitative data was the context of the student teaching placement in regard to the cooperating teacher. The cooperating teachers' willingness to support their student teachers with planning, instruction, and assessment affected pre-service teachers' self-efficacy. The context of student teaching placements can be a thoughtful, intentional approach of pairing two

individuals (i.e., cooperating teacher and student teacher); however, even with careful pairing, there may be a conflict with personalities, curriculum mandates, styles of teaching, etc. that will affect pre-service teachers' self-efficacy.

Qualitative phase. One limitation from the qualitative phase of the study was identifying cases that shared similar demographics. Both cases were non-traditional students, had similar teacher preparation experiences, and had similar family structures. The majority of the university's pre-service teacher population, in which this study was conducted, represents traditional students. Therefore, limited implications can be noted for traditional, pre-service teachers when developing the edTPA teaching portfolio.

Another limitation was that the two pre-service teachers participating represented secondary education programs. The university's secondary education programs have a heavy emphasis of content coursework with limited experiences in the field (i.e., methods courses and practicum) prior to student teaching. Compared to other teacher preparation programs within the university (e.g., Early Childhood Education and Special Education), the results may have varied based on differences in program progression.

RECOMMENDATIONS FOR FURTHER RESEARCH

Given the effects of the cooperating teacher on pre-service teachers' self-efficacy, a future research study should look more closely at the effects of the cooperating teacher. A concept that could be studied is the perceptions of the cooperating teacher. These perceptions could include- expectations during student teaching, knowledge of edTPA, process for developing edTPA as a teaching portfolio, and support structures provided to pre-service teachers.

An additional concept that could be studied is the context in which the student teacher is placed for student teaching. Since both cases for the qualitative phase of the study were secondary education majors and described their cooperating teachers as having traditional styles of teaching, the results may have been different for other education majors based on the contextual features of the student teaching placement (i.e., cooperating teachers' styles of teaching and expectations of pre-service teachers' styles of teaching).

A future study exploring the effects of various teacher preparation programs on pre-service teachers' self-efficacy/confidence to develop the edTPA as a teaching portfolio would be advantageous. Pre-service teachers enrolled in the secondary education, foreign language, some of the performing arts programs have more pre-requisite courses for the content in which they will be teaching as opposed to courses regarding the methods in which to teach the content. If pre-service teachers have opportunities to practice planning, instruction, assessment, and reflection of teaching prior to student teaching, the practice could affect their confidence when developing edTPA as a teaching portfolio.

Traditional pre-service teachers may have different experiences and perceptions when developing the edTPA teaching portfolio as compared to non-traditional pre-service teachers, which may affect their self-efficacy. Typically, non-traditional pre-service teachers are career changers, and traditional pre-service teachers are entering college right after high school. The age differences and life experiences could affect pre-service teachers' self-efficacy when developing edTPA as a teaching portfolio.

Pre-service teachers' experiences and perceptions for developing edTPA as a teaching portfolio within a non-tied-to-licensure state would be an interesting concept to investigate. The development of the portfolio within a tied-to-licensure state could affect pre-service teachers' levels of anxiety, which could then affect self-efficacy. Therefore, the results may differ for pre-service teachers in states that are exploring/piloting edTPA or have chosen not to develop policy for edTPA as a pre-requisite for receiving teacher licensure.

A final concept that could be studied is the effects of developing edTPA as a teaching portfolio on first year, in-service teachers' self-efficacy. The purpose of teacher preparation programs is to ensure pre-service teachers are classroom-ready (i.e., equipped to positively affect students' learning) for their first years of teaching. Therefore, the study should analyze if the development of the teaching portfolio has lasting effects on pre-service teachers' self-efficacy as they transition into their first years of teaching in relation to planning, instruction, assessment, and reflection of teaching. Furthermore, the study should analyze the effects of in-service teachers' performances of planning, instruction, assessment, and reflection of teaching on students' learning.

CONCLUDING THOUGHTS

As the university's edTPA Coordinator, the researcher's role has been to support faculty and pre-service teachers, representing all teacher preparation programs, leading up to the first semester edTPA became an additional pre-requisite for pre-service teachers seeking teacher licensure. Throughout the early stages of piloting edTPA in the university's teacher preparation programs, some of the teacher educators began to unpack edTPA's constructs (e.g., planning for students' understanding, deepening students'

learning, analyzing teaching effectiveness). The early discussions regarding edTPA became these notions of, “These concepts just represent good teaching” to “This is exactly what we want our pre-service teachers demonstrating.” As one teacher educator proclaimed with her pre-service teacher, “Honey, every day should be an edTPA day!” (J. Whitt, personal communication, January 18, 2015)

Prior to the first semester of consequential usage, there were numerous occasions in which the researcher noticed a change, shift if you will, in the pre-service teachers’ confidence after developing the edTPA teaching portfolio. There was also a change in the ways in which the teacher educators prepared their pre-service teachers. Consequently, many faculty members described how the modification of their curriculum positively affected their pre-service teachers’ preparedness for today’s classrooms and the state’s in-service evaluation system for teachers. Furthermore, some faculty described the effects of modifying their curriculum to have positive effects on their own pedagogical decisions and practices. Hence, the idea to study the effects of developing the edTPA teaching portfolio on pre-service teachers’ self-efficacy became intriguing.

During the initial investigation of what others had identified in terms of the effects of a teaching portfolio on teaching self-efficacy/confidence, the researcher began to re-conceptualize these notions of a scrapbook of teaching (i.e., collection of teaching artifacts) and a teaching portfolio (Shulman, 1986). The difference in the two is that a teaching portfolio affords pre-service teachers with opportunities to reflect on their teaching as opposed to solely collecting evidence of teaching. As Bandura (19797) noted, the performance itself does not affect self-efficacy, but it is the reflection of the performance that affects an individual’s self-efficacy.

This shift being demonstrated in the pre-service teachers' self-efficacy/confidence was a result of the opportunities for them to describe, explain, justify, and analyze their teaching decisions and practices throughout the development of the edTPA as a teaching portfolio. Therefore, the idea of pre-service teachers completing edTPA as a professional development opportunity to reflect on their teaching decisions and practices should be emphasized by teacher educators and cooperating teachers as opposed to viewing the edTPA as merely a teacher performance assessment used for teacher licensure. As one of the teacher preparation program's pre-service teachers explained during the development of her edTPA teaching portfolio,

> I just had an epiphany as to why we do edTPA. During my learning segment I had a student who COULD NOT understand how to subtract, and I was having trouble figuring out why. I knew for my re-engagement lesson that I needed to help him with regrouping, but until just a little bit ago, I didn't fully understand WHY. Because this task is making me sit here, analyze each piece of student work, and think about the procedures students need to know and connect them to conceptual understanding, I am finally able to see what my student is having trouble with!!! I am so excited to go into the classroom on Monday, apologize to my student for letting him down, and actually give him the help he needs. So despite edTPA being tedious, it's comforting to know that it is in fact making me a better teacher. (K. Adkins, personal communication, September 25, 2015)

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Appendices

Appendix A

Pilot Self-Efficacy Survey & Reliability and Validity Results

*Administered after submitting the edTPA teaching portfolios for official scoring

Indicate your level of confidence regarding the following:

Not Confident at All	Somewhat confident	Confident	Very Confident
-1-	-2-	-3-	-4-

I am confident in*:*

1. developing lesson plans that build on one another to support students' learning.
2. developing lesson plans that build on one another to deepen students' learning.
3. developing differentiated, learning tasks to support individual students' needs.
4. describing how learning strategies and planned supports are supported by research and/or theory.
5. developing learning tasks that support my students in learning and using academic language associated with my discipline.
6. developing multiple forms of assessments to monitor my students' learning.
7. providing a safe learning environment that promotes mutual respect.
8. providing a safe learning environment that demonstrates a positive rapport with all learners.
9. providing a safe learning environment that encourages learners to critically think.
10. allowing my students to make connections to their prior learning.
11. providing learning tasks that are connected to my students' interests.
12. asking higher level questions.
13. building on my students' responses to deepen their learning.
14. evaluating my instruction in order to describe missed opportunities.
15. using the reflection of my instruction to develop more effective learning tasks for my students.
16. evaluating my students' learning.
17. describing similarities and differences regarding my students' learning.
18. providing feedback to my students that addresses their areas of strength and areas for improvement.
19. providing learning tasks for my students that allow them to use my feedback to strengthen and/or revise their thinking.
20. evaluating my students' use of academic language (i.e., function, vocabulary syntax, and discourse).

21. developing next steps for instruction supported by research and/or theory that will meet my individual students' needs.

Table A1

Corrected Item-Total Correlation and Alpha Coefficients for the Planning Scale

Item	Corrected Item-Total Correlation Coefficient	Alpha Coefficient if Deleted
Developing lesson plans that build on one another to support students' learning	.71	.88
Developing lesson plans that build on one another to deepen students' learning	.67	.89
Developing differentiated, learning tasks to support individual students' needs	.71	.88
Describing how learning strategies and planned supports are supported by research and/or theory	.74	.88
Developing learning tasks that support my students in learning and using academic language associated with my discipline	.79	.87
Developing multiple forms of assessments to monitor my students' learning	.74	.88

Table A2

Corrected Item-Total Correlation and Alpha Coefficients for the Instruction Scale

Item	Corrected Item-Total Correlation Coefficient	Alpha Coefficient if Deleted
Providing a safe learning environment that promotes mutual respect	.62	.90
Providing a safe learning environment that demonstrates a positive rapport with all learners	.62	.90
Providing a safe learning environment that encourages learners to critically think	.67	.90

Allowing my students to make connections to their prior learning	.81	.89
Providing learning tasks that are connected to my students' interests	.76	.89
Asking higher level questions	.72	.89
Building on my students' responses to deepen their learning	.73	.89
Evaluating my instruction in order to describe missed opportunities	.57	.91
Using the reflection of my instruction to develop more effective learning tasks for my students	.66	.90

Table A3

Corrected Item-Total Correlation and Alpha Coefficients for the Assessment Scale

Item	Corrected Item-Total Correlation Coefficient	Alpha Coefficient if Deleted
Evaluating my students' learning	.77	.89
Describing similarities and differences regarding my students' learning	.78	.89
Providing feedback to my students that addresses their areas of strength and areas for improvement	.79	.88
Providing learning tasks for my students that allow them to use my feedback to strengthen and/or revise their thinking	.73	.89
Evaluating my students' use of academic language (i.e., function, vocabulary syntax, and discourse)	.75	.89
Developing next steps for instruction supported by research and/or theory that will meet my individual students' needs	.66	.90

Table A4

Intercorrelations for the Pilot Self-Efficacy Survey Scales

Scale	1	2	3
1. Planning	--		
2. Instruction	.80**	--	
3. Assessment	.83**	.83**	--

Note: * $p < .05$; ** $p < .001$.

Appendix B

Pre Self-Efficacy Survey & Reliability and Validity Results

*Administered before beginning the development of the edTPA teaching portfolio)

E-mail Address: _____

Teacher Education Program: _____

DOB: _____ Gender: _____ Race: _____

Married:_____ Single: _____

I do not have any children: _____ I have one child: _____ I have more than one child: _____

Level of degree seeking: Undergraduate _____ Post-Bac _____ MAT _____

Number of year(s) in college: Less than one _____ One _____ Between two and three _____ Between four and five _____ More than five _____

edTPA-Like Assignments and/or Experiences throughout Your Program: None_____ One _____ Between two and four _____ Between five and six _____ More than six _____

Type of School for Student Teaching (check all that apply): Rural _____, Urban ____, Suburban ____, Title 1 _____

Indicate your level of confidence regarding the following:

Not Confident at All	Somewhat confident	Confident	Very Confident
-1-	-2-	-3-	-4-

I am confident in*:*

1. developing lesson plans that build on one another to support students' learning.
2. developing lesson plans that build on one another to deepen students' learning.
3. developing differentiated, learning tasks to support individual students' needs.
4. describing how learning strategies and planned supports are supported by research and/or theory.
5. developing learning tasks that support my students in learning and using academic language associated with my discipline.
6. developing multiple forms of assessments to monitor my students' learning.
7. providing a safe learning environment that promotes mutual respect.
8. providing a safe learning environment that demonstrates a positive rapport with all learners.

9. providing a safe learning environment that encourages learners to critically think.
10. allowing my students to make connections to their prior learning.
11. providing learning tasks that are connected to my students' interests.
12. asking higher level questions.
13. building on my students' responses to deepen their learning.
14. evaluating my instruction in order to describe missed opportunities.
15. using the reflection of my instruction to develop more effective learning tasks for my students.
16. evaluating my students' learning.
17. describing similarities and differences regarding my students' learning.
18. providing feedback to my students that addresses their areas of strength and areas for improvement.
19. providing learning tasks for my students that allow them to use my feedback to strengthen and/or revise their thinking.
20. evaluating my students' use of academic language (i.e., function, vocabulary syntax, and discourse).
21. developing next steps for instruction supported by research and/or theory that will meet my individual students' needs.

Table B1

Corrected Item-Total Correlation and Alpha Coefficients for the Planning Scale

Item	Corrected Item-Total Correlation Coefficient	Alpha Coefficient if Deleted
Developing lesson plans that build on one another to support students' learning	.56	.82
Developing lesson plans that build on one another to deepen students' learning	.66	.80
Developing differentiated, learning tasks to support individual students' needs	.50	.83
Describing how learning strategies and planned supports are supported by research and/or theory	.57	.82
Developing learning tasks that support my students in learning and using academic language associated with my discipline	.66	.80

Developing multiple forms of assessments to monitor my students' learning	.72	.79

Table B2

Corrected Item-Total Correlation and Alpha Coefficients for the Instruction Scale

Item	Corrected Item-Total Correlation Coefficient	Alpha Coefficient if Deleted
Providing a safe learning environment that promotes mutual respect	.47	.89
Providing a safe learning environment that demonstrates a positive rapport with all learners	.54	.88
Providing a safe learning environment that encourages learners to critically think	.74	.87
Allowing my students to make connections to their prior learning	.70	.87
Providing learning tasks that are connected to my students' interests	.77	.86
Asking higher level questions	.68	.87
Building on my students' responses to deepen their learning	.68	.87
Evaluating my instruction in order to describe missed opportunities	.58	.88
Using the reflection of my instruction to develop more effective learning tasks for my students	.68	.87

Table B3

Corrected Item-Total Correlation and Alpha Coefficients for the Assessment Scale

Item	Corrected Item-Total Correlation Coefficient	Alpha Coefficient if Deleted
Evaluating my students' learning	.64	.81

Describing similarities and differences regarding my students' learning	.52	.83
Providing feedback to my students that addresses their areas of strength and areas for improvement	.66	.81
Providing learning tasks for my students that allow them to use my feedback to strengthen and/or revise their thinking	.74	.79
Evaluating my students' use of academic language (i.e., function, vocabulary syntax, and discourse)	.51	.84
Developing next steps for instruction supported by research and/or theory that will meet my individual students' needs	.70	.80

Table B4

Intercorrelations for the Pre Self-Efficacy Survey Scales

Scale	1	2	3
1. Planning	--		
2. Instruction	.39**	--	
3. Assessment	.67**	.54**	--

Note: * $p < .05$; ** $p < .001$.

Appendix C

Post Self-Efficacy Survey & Reliability and Validity Results

*Administered after submitting the edTPA teaching portfolios for official scoring

E-mail Address: _____

Indicate your level of confidence regarding the following:

Not Confident at All	Somewhat confident	Confident	Very Confident
-1-	-2-	-3-	-4-

I am confident in*:*

1. developing lesson plans that build on one another to support students' learning.
2. developing lesson plans that build on one another to deepen students' learning.
3. developing differentiated, learning tasks to support individual students' needs.
4. describing how learning strategies and planned supports are supported by research and/or theory.
5. developing learning tasks that support my students in learning and using academic language associated with my discipline.
6. developing multiple forms of assessments to monitor my students' learning.
7. providing a safe learning environment that promotes mutual respect.
8. providing a safe learning environment that demonstrates a positive rapport with all learners.
9. providing a safe learning environment that encourages learners to critically think.
10. allowing my students to make connections to their prior learning.
11. providing learning tasks that are connected to my students' interests.
12. asking higher level questions.
13. building on my students' responses to deepen their learning.
14. evaluating my instruction in order to describe missed opportunities.
15. using the reflection of my instruction to develop more effective learning tasks for my students.
16. evaluating my students' learning.
17. describing similarities and differences regarding my students' learning.
18. providing feedback to my students that addresses their areas of strength and areas for improvement.
19. providing learning tasks for my students that allow them to use my feedback to strengthen and/or revise their thinking.
20. evaluating my students' use of academic language (i.e., function, vocabulary syntax, and discourse).

21. developing next steps for instruction supported by research and/or theory that will meet my individual students' needs.

Co-Variate Questions (Yes or No)

1. From the beginning of student teaching, I felt like a member of the school.
2. My cooperating teacher provided feedback on my lesson plans in the early weeks of student teaching.
3. My cooperating teacher provided feedback on my teaching in the early weeks of student teaching.
4. My cooperating teacher helped me assess the students.
5. I revised my tasks after self-assessing.

Table C1

Corrected Item-Total Correlation and Alpha Coefficients for the Planning Scale

Item	Corrected Item-Total Correlation Coefficient	Alpha Coefficient if Deleted
Developing lesson plans that build on one another to support students' learning	.79	.89
Developing lesson plans that build on one another to deepen students' learning	.82	.89
Developing differentiated, learning tasks to support individual students' needs	.75	.90
Describing how learning strategies and planned supports are supported by research and/or theory	.63	.92
Developing learning tasks that support my students in learning and using academic language associated with my discipline	.81	.89
Developing multiple forms of assessments to monitor my students' learning	.79	.89

Table C2

Corrected Item-Total Correlation and Alpha Coefficients for the Instruction Scale

Item	Corrected Item-Total Correlation Coefficient	Alpha Coefficient if Deleted

Providing a safe learning environment that promotes mutual respect	.78	.94
Providing a safe learning environment that demonstrates a positive rapport with all learners	.85	.93
Providing a safe learning environment that encourages learners to critically think	.80	.94
Allowing my students to make connections to their prior learning	.76	.94
Providing learning tasks that are connected to my students' interests	.81	.94
Asking higher level questions	.72	.94
Building on my students' responses to deepen their learning	.74	.94
Evaluating my instruction in order to describe missed opportunities	.83	.94
Using the reflection of my instruction to develop more effective learning tasks for my students	.79	.94

Table C3

Corrected Item-Total Correlation and Alpha Coefficients for the Assessment Scale

Item	Corrected Item-Total Correlation Coefficient	Alpha Coefficient if Deleted
Evaluating my students' learning	.74	.92
Describing similarities and differences regarding my students' learning	.75	.92
Providing feedback to my students that addresses their areas of strength and areas for improvement	.83	.91
Providing learning tasks for my students that allow them to use my feedback to	.90	.90

strengthen and/or revise their thinking		
Evaluating my students' use of academic language (i.e., function, vocabulary syntax, and discourse)	.79	.92
Developing next steps for instruction supported by research and/or theory that will meet my individual students' needs	.76	.92

Table C4

Intercorrelations for the Post Self-Efficacy Survey Scales

Scale	1	2	3
1. Planning	--		
2. Instruction	.89**	--	
3. Assessment	.92**	.82**	--

Note: * $p < .05$; ** $p < .001$.

Appendix D

Originally Developed & Revised Interview Questions

1. Describe your experiences when developing the edTPA teaching portfolio.
2. Tell me about your experiences with planning.
3. Tell me about your experiences with instruction.
4. Tell me about your experiences with assessment.
5. Now that you've gotten your scores for edTPA, what are your thoughts?

1. Describe your experiences when developing the edTPA teaching portfolio.
2. Tell me about your experiences with planning.
3. Tell me about your experiences with instruction.
4. Tell me about your experiences with assessment.
5. Tell me about your cooperating teacher and his/her role throughout the development of the edTPA teaching portfolio and student teaching experience.
6. Reflecting on how you self-assessed your artifacts and commentaries with the edTPA official rubrics, how do your self-assessment results compare to the official edTPA scores?
7. Now that you've gotten your scores for edTPA, what are your thoughts?

Appendix E

Pre-Determined Codes

Pre-Determined Descriptive Codes	Supporting Evidence
Predictor of Time Investment	Bandura, 1977
Influence Personal Decisions	
Perseverance of Task	
Goal-Setting to Accomplish a Task	
Feelings of 'I can or I can't'	
Transformative Power	Lyons, 1998
Intentional and Purposeful	Shulman, 1994
Represents the Individuality of a Teacher	Lambe et al.2013
Evaluate Teaching for Improvement	Forawi et al., 2012; Harnett-Edwards, 2013
Focus on Teaching in New Ways (i.e., innovative strategies)	Chung, 2008; Okhremtchouk et al., 2013; Strudler & Wetzel, 2012
Confident in Meeting Individual Students' Needs	Okhremtchouk et al., 2013
Confident in Realization of What Works and What Doesn't in Teaching	
Willingness to be Flexible	Forawi et al., 2012
Confident in Solving Problems	Anderson & DeMeulle, 1998; Antonek, McCormick, & Donato, 1997; Borko, Michalec, Timmons, & Siddle, 1997
Confident in Making Instructional Decisions based on Assessment Data	Gallant & Mayer, 2013; Okhremtchouk et al., 2013
Stronger Reflective Practitioners	Forawi et al., 2012; Hartnett-Edwards, 2013; Lin, 2015
Confident in Participating Professional Conversations	Gallant & Mayer, 2013; Strudler & Wetzel, 2012
Zeal/Excitement	Tschannen-Moran & Hoy, 2001
Invest More Time to Prepare	
Determination	
Positive Learning Environment	Tschannen-Moran & Barr, 2004
Barrier: Time Intensive (i.e., portfolio takes too much time)	Imhof & Picard, 2009; Lin, 2015
Barrier: Lack of Faculty Understanding and Buy-In (caused confusion and frustration)	Imhof & Picard, 2009

Appendix F

Pre to Post Self-Efficacy Results for Each Case

Level 1 not confident at all
Level 2 somewhat confident
Level 3 confident
Level 4 very confident

edTPA Construct	Pre Self-Efficacy Rating Stephanie	Post Self-Efficacy Rating Stephanie	Pre Self-Efficacy Rating Beverly	Post Self-Efficacy Rating Beverly
1. developing lesson plans that build on one another to support students' learning.	**3**	**3**	**2**	**4**
2. developing lesson plans that build on one another to deepen students' learning.	**3**	**3**	**2**	**4**
3. developing differentiated, learning tasks to support individual students' needs.	**2**	**2**	**2**	**4**
4. describing how learning strategies and planned supports are supported by research and/or theory.	**2**	**2**	**1**	**4**
5. developing learning tasks that support my students in learning and using academic language	**2**	**2**	**2**	**4**

associated with my discipline.				
6. developing multiple forms of assessments to monitor my students' learning.	**3**	**3**	**3**	**4**
7. providing a safe learning environment that promotes mutual respect.	**4**	**3**	**4**	**4**
8. providing a safe learning environment that demonstrates a positive rapport with all learners.	**4**	**3**	**4**	**4**
9. providing a safe learning environment that encourages learners to critically think.	**3**	**3**	**4**	**4**
10. allowing my students to make connections to their prior learning.	**3**	**3**	**4**	**4**
11. providing learning tasks that are connected to my students' interests.	**3**	**3**	**4**	**4**
12. asking higher level questions.	**3**	**2**	**3**	**4**
13. building on my students' responses to	**4**	**3**	**3**	**4**

deepen their learning.				
14. evaluating my instruction in order to describe missed opportunities.	**2**	**3**	**3**	**4**
15. using the reflection of my instruction to develop more effective learning tasks for my students.	**2**	**3**	**3**	**4**
16. evaluating my students' learning.	**3**	**3**	**4**	**4**
17. describing similarities and differences regarding my students' learning.	**2**	**3**	**3**	**3**
18. providing feedback to my students that addresses their areas of strength and areas for improvement.	**3**	**3**	**3**	**4**
19. providing learning tasks for my students that allow them to use my feedback to strengthen and/or revise their thinking.	**3**	**3**	**3**	**4**
20. evaluating my students' use of	**2**	**2**	**1**	**4**

academic language (i.e., function, vocabulary syntax, and discourse).				
21. developing next steps for instruction supported by research and/or theory that will meet my individual students' needs.	**2**	**2**	**2**	**4**

Yellow indicates decrease in efficacy

Turquoise indicates increase in efficacy

Appendix G

IRB Approval Letters for Pilot Study & Study

Pilot Study: Validation of Self-Efficacy Survey

Institutional Review Board
Columbus State University

Date: 10/13/15

Protocol Number: 16-027

Protocol Title: Validation of a Self-Efficacy Measure

Principal Investigator: Jennifer Brown

Co-Principal Investigator: Pam Wetherington

Dear Jennifer Brown:

The Columbus State University Institutional Review Board or representative(s) has reviewed your research proposal identified above. It has been determined that the project is classified as exempt under 45 CFR 46.101(b) of the federal regulations and has been approved. You may begin your research project immediately.

Please note any changes to the protocol must be submitted in writing to the IRB before implementing the change(s). Any adverse events, unexpected problems, and/or incidents that involve risks to participants and/or others must be reported to the Institutional Review Board at irb@columbusstate.edu or (706) 507-8634.
If you have further questions, please feel free to contact the IRB.
Sincerely,

Amber Dees, IRB Coordinator
Institutional Review Board
Columbus State University

Study: Effects of Developing EDTPA as a Teaching Portfolio on Pre-Service Teachers' Self-Efficacy in a Teacher Preparation Program

Institutional Review Board
Columbus State University

Date: 6/15/16
Protocol Number: 16-099
Protocol Title: Effects of Developing EDTPA as a Teaching Portfolio on Pre-Service Teachers' Self-Efficacy in a Teacher Preparation Program
Principal Investigator: Pam Wetherington
Co-Principal Investigator: Deirdre Greer

Dear Pam Wetherington:

Representatives of the Columbus State University Institutional Review Board have reviewed your research proposal identified above. It has been determined that the research project poses minimal risk to subjects and qualifies for expedited review under 45 CFR 46.110.

Approval is granted for one (1) year from the date of this letter for approximately 50 subjects. Please note any changes to the protocol must be submitted in writing to the IRB before implementing the change(s). Any adverse events, unexpected problems, and/or incidents that involve risks to participants and/or others must be reported to the Institutional Review Board at irb@columbusstate.edu or (706) 507-8634.

You must submit a Final Report Form to the IRB once the project is completed or within 12 months from the date of this letter. If the study extends beyond 1 year, you must submit a Project Continuation Form to the IRB. Both forms are located on the CSU IRB website (http://research.columbusstate.edu/irb/). The completed form should be submitted to irb@columbusstate.edu. Please note that either the Principal Investigator or Co-Principal Investigator can complete and submit this form to the IRB. Failure to submit this required form could delay the approval process for future IRB applications.

If you have further questions, please feel free to contact the IRB.

Sincerely,
Amber Dees, IRB Coordinator
Institutional Review Board
Columbus State University

Appendix H

Informed Consent: Pilot Study & Study

Pilot Study: Validation of Self-Efficacy Survey

You are being asked to participate in a research project conducted by Dr. Jennifer Brown, a faculty member in the Teacher Education Department at Columbus State University.

I. Purpose:

The purpose of this study will be to validate a survey measure to assess self-efficacy among pre-service teachers seeking initial teacher licensure at Columbus State University.

II. Procedures:

The first page of the web-based survey will include the following information: (1) an explanation of the research project and its purpose, (2) a description of the minimal risks and possible benefits of the research project, (3) a statement explaining the maintenance of confidential records, and (4) a statement explaining the procedures for withdrawal. The participants will select the appropriate radial within the web-based survey as to whether they agree or disagree to participate in the study. If they choose not to participate, the survey will conclude, and the response will be recorded. If they choose to participate, then they will respond to each of the survey items

III. Possible Risks or Discomforts:

There are not any signficant risks or discomforts for this study.

IV. Potential Benefits:

There are not any potential benefits for the individual participants; however, this research could impact future pre-service teachers at this institution and other institutions who will participate in the edTPA process.

V. Costs and Compensation:

There is no compensation for participants.

VI. Confidentiality:

The research team will ensure that the subjects' confidentiality are maintained using a CSU password-protected computer in the PI's Office to store the electronic files. The raw data will be stored for the long term on the PI's office computer, which will be accessible by the PI and Co-PI only.

VII. Withdrawal:

Your participation in this research study is voluntary. You may withdraw from the study at any time, and your withdrawal will not involve penalty or loss of benefits.

For additional information about this research project, you may contact the Principal Investigator, Dr. Jennifer Brown, at brown_jennifer2@columbusstate.edu. If you have any questions about your rights as a research participant, you may contact Columbus State University Institutional Review Board at irb@columbusstate.edu.

I have read this informed consent form. If I had any questions, they have been answered. By selecting the *I agree* radial and *Submit*, I agree to participate in this research project.

○ I agree. ○ I do not agree.

Submit

Study: Effects of Developing EDTPA as a Teaching Portfolio on Pre-Service Teachers' Self-Efficacy in a Teacher Preparation Program

You are being asked to participate in a research project conducted by Mrs. Pam Wetherington in the Teacher Education Department and Dr. Deirdre Greer, Dean of the College of Education and Health Professions, at Columbus State University.

I. Purpose:

The purpose of this study will be to investigate the effects of the development of the edTPA teaching portfolio on pre-service teachers' self-efficacy, specifically their perceptions of confidence related to the edTPA's constructs of planning, instruction, and assessment within a tied-to-licensure state.

II. Procedures:

The data collection will occur in two phases (i.e., quantitative and qualitative).

Phase 1 (Quantitative):

1. The pre-service teachers will receive an invitation to participate in web-based survey via their CSU email address. There will be an anonymous link, which the participant will need to select or copy and paste into his or her internet browser.
2. Pre-service teachers will participate in edTPA Boot Camps, each specific program (e.g., Early Childhood Education) attending on a certain day.
3. At the conclusion of the first edTPA Boot Camp, the edTPA Graduate Assistant will verbally explain the purpose of the study, and pre-service teachers will be permitted to ask questions. After the edTPA Graduate Assistant has verbally explained the purpose of the study, the pre-service teachers may choose to participate in the study by completing the survey via the emailed link.

4. Pre-service teachers will participate in the second edTPA Boot Camp. At this Boot Camp, they will complete edTPA teaching portfolio's Task 1 commentary for planning. At the conclusion of the second edTPA Boot Camp, pre-service teachers will self-assess Task 1, using the edTPA official rubrics.
5. Pre-service teachers will participate in the third edTPA Boot Camp. At this Boot Camp, they will complete edTPA teaching portfolio's Task 2 commentary for instruction. At the conclusion of the third edTPA Boot Camp, pre-service teachers will self-assess Task 2, using the edTPA official rubrics.
6. Pre-service teachers will participate in the fourth edTPA Boot Camp. At this Boot Camp, they will complete edTPA teaching portfolio's Task 3 commentary for assessment. At the conclusion of the fourth edTPA Boot Camp, pre-service teachers will self-assess Task 3, using the edTPA official rubrics.
7. Pre-service teachers will submit their edTPA teaching portfolios for official scoring. After submitting their portfolios, the edTPA Graduate Assistant will verbally explain the Post Self-Efficacy Survey, and pre-service teachers will be permitted to ask questions. Pre-service teachers who initially indicating their willingness to participate in the study will complete the Post Self-Efficacy Survey.

Phase 2 (Qualitative):

8. The PI will conduct focus group sessions.
9. The focus group sessions will be audio-recorded.

III. Possible Risks or Discomforts:

The PI serves as the participants' edTPA Coordinator. Her responsibilities will include answering questions, facilitating their edTPA Boot Camps (i.e., instructional support), reviewing their work, and providing probing questions. Your participation in the study will not affect your grade for student teaching.

IV. Potential Benefits:

There are not any potential benefits for the individual participants; however, this research could impact future pre-service teachers at this institution and other institutions who will participate in the edTPA process.

V. Costs and Compensation:

There is no compensation for participants.

VI. Confidentiality:

The research team will ensure that the subjects' confidentiality are maintained using a CSU password-protected computer in the PI's Office to store the electronic files. The raw data will be stored on the PI's office computer, which will be accessible by the PI, Co-PI, quantitative methodologist, and qualitative methodologist.

VII. Withdrawal:

Your participation in this research study is voluntary. You may withdraw from the study at any time, and your withdrawal will not involve penalty or loss of benefits.

For additional information about this research project, you may contact the Principal Investigator, Mrs. Pam Wetherington, at wetherington_pamela@columbusstate.edu. If you have any questions about your rights as a research participant, you may contact Columbus State University Institutional Review Board at irb@columbusstate.edu.

I have read this informed consent form. If I had any questions, they have been answered. By selecting the *I agree* radial and *Submit*, I agree to participate in this research project.

○ I agree. ○ I do not agree.

Submit